

**ANTECEDENTS OF STUDENTS' LOYALTY: THE  
CASE OF AN OPEN AND DISTANCE LEARNING  
INSTITUTION**

**YON ROSLI DAUD**

**OPEN UNIVERSITY MALAYSIA  
2019**

**ANTECEDENTS OF STUDENTS' LOYALTY: THE CASE OF AN  
OPEN AND DISTANCE LEARNING INSTITUTION**

**YON ROSLI DAUD**

A dissertation submitted in partial fulfilment of the requirements for the  
degree of Doctor of Business Administration

Cluster of OUM Business and Management  
Open University Malaysia

**2019**

## **DECLARATION**

Name: Yon Rosli Bin Daud

Matric Number: CGS00635829

I hereby declare that this dissertation is the result of my own work, except for quotations and summaries which have been duly acknowledged.

Signature:

Date:

# **ANTECEDENTS OF STUDENTS' LOYALTY: THE CASE OF AN OPEN AND DISTANCE LEARNING INSTITUTION**

**YON ROSLI BIN DAUD**

## **ABSTRACT**

Research on student loyalty has predominantly concentrated on traditional university setting and on full time students and very less concentrated on open distance learning universities where the students are part time students. The purpose of this research is to examine the relationship between the factors leading to student loyalty in open distance learning universities. Specifically, the objective of this research is to examine the relationship between Perceived Service Quality, Perceived E-Service Quality, and University Image as mediator on Student Loyalty in Open University Malaysia.

Data was collected from students pursuing their studies at Open University Malaysia. Data was collected from sixteen learning centres throughout Malaysia. A purposive convenient sampling technique was used for this research where a sample size of 752 respondents was obtained. Analysis from the data indicated there was a positive significant relationship between Perceived Service Quality and University Image. Perceived Service Quality was also found to have a positive significant relationship with Student Loyalty. Similarly, it was also found that there was a positive significant relationship between Perceived E-Service Quality and University Image. Perceived E-Service Quality was also found to have a positive significant relationship with Student Loyalty. University Image was also discovered to act as a mediator for the relationship between Perceived Service Quality and Student Loyalty. Similarly University Image was also discovered to act as a mediator for the relationship between Perceived E-Service Quality and Student Loyalty.

This research has provided a measurement scale specific to measuring service quality to open distance learning universities and facilitate in improving the marketing strategies in open distance learning universities.

**Keywords:** Perceived Service Quality, Perceived E-Service Quality, University Image, Student Loyalty

# **ANTESEDEN KESETIAAN PELAJAR: KES DALAM INSTITUSI PEMBELAJARAN SECARA TERBUKA DAN JARAK JAUH**

**YON ROSLI BIN DAUD**

## **ABSTRAK**

Penyelidikan terhadap kesetiaan pelajar kebanyakannya tertumpu pada persekitaran universiti tradisional dan pelajar sepenuh masa dan kurang tertumpu kepada universiti terbuka dan pembelajaran jarak jauh di mana pelajar adalah pelajar separuh masa. Tujuan kajian ini adalah untuk mengkaji hubungan antara faktor yang membawa kepada kesetiaan pelajar dalam universiti pembelajaran jarak jauh. Secara khusus, objektif kajian ini adalah untuk mengkaji hubungan antara Persepsi Kualiti Perkhidmatan, Persepsi Kualiti E-Perkhidmatan dan Imej Universiti sebagai pengantara Kesetiaan Pelajar di Universiti Terbuka Malaysia.

Data dikumpulkan dari pelajar yang mengikuti pengajian di Open University Malaysia. Data dikumpulkan dari enambelas pusat pembelajaran di seluruh Malaysia. Teknik pensampelan mudah digunakan untuk kajian ini di mana sebanyak 752 saiz sampel dari responden diperolehi. Analisis dari data menunjukkan terdapat hubungan yang signifikan antara Persepsi Kualiti Perkhidmatan dan Imej Universiti. Persepsi Kualiti Perkhidmatan didapati mempunyai hubungan yang positif dengan Kesetiaan Pelajar. Persepsi Kualiti Perkhidmatan didapati mempunyai hubungan yang signifikan dengan Imej Universiti. Persepsi Kualiti E-Perkhidmatan juga mempunyai hubungan yang positif dengan Kesetiaan Pelajar. Imej Universiti didapati bertindak sebagai perantara hubungan antara Persepsi Kualiti Perkhidmatan Teradun dan Kesetiaan Pelajar. Imej Universiti juga ditemui bertindak sebagai perantara hubungan antara Persepsi Kualiti E-Perkhidmatan dan Kesetiaan Pelajar.

Penyelidikan ini telah menyediakan skala ukuran khusus untuk mengukur kualiti perkhidmatan untuk universiti terbuka pembelajaran jarak jauh dan membantu dalam meningkatkan strategi pemasaran di universiti terbuka pembelajaran jarak jauh.

Kata kunci: Persepsi Kualiti Perkhidmatan, Persepsi Kualiti E-Perkhidmatan, Imej Universiti, Kesetiaan Pelajar

## **ACKNOWLEDGEMENTS**

It has been seven years since I started the Doctorate of Business Administration degree at Open University Malaysia. I would like to sincerely thank the following people who are responsible for me completing this dissertation.

First of all, I would like to thank my supervisor, Dr. Jeannot Abdul Karim for his advice, guidance, inspiration, supervision and constructive criticisms which altogether helped me to write this dissertation. Without his guidance, I could not have completed this dissertation and my graduate studies successfully.

Secondly, I would like to thank all those who have helped me in my quest, friends, the professors and authorities in the field of Service Quality and Student Loyalty.

Thirdly, my sincere appreciation also goes to all the 16 OUM Learning Centre Directors and Staff for spending time to administer the surveys and the respondents who have helped me in my journey.

Finally, I am deeply indebted to my dearest wife, Katijah Abd Arabi and my only daughter Afiqah Afifi who have supported and encouraged me throughout my studies.

‘Terima Kasih’ goes to all of you.

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**LIST OF ABBREVIATIONS**

APEL	Accreditation of Prior Experiential Learning
AGFI	Adjusted Goodness of Fit
AMOS	Analysis of Moments Structures
AVE	Average Variance Extracted
CFI	Comparative Fit Index
CFA	Confirmatory Factor Analysis
CR	Construct Reliability
DV	Dependent Variable
Chisq	Discrepancy Chi Square
EDT	Expectation Disconfirmation Theory
GFI	Goodness of Fit Index
HEIs	Higher Education Institutions
IV	Independent Variable
MARA	Majlis Amanah Rakyat
MyQUEST	Malaysia Quality Evaluation System for Private Colleges
MQA	Malaysian Qualification Agency
MOHE	Ministry of Higher Education
NFI	Normed Fit Index
PESQ	Perceived E-Service Quality

PSQ	Perceived Service Quality
R <sup>2</sup>	R Square
SETARA	Rating System for Malaysian Higher Education Institutions
RMSEA	Root Mean Square of Error Approximation
SQ	Service Quality
SERVQUAL	Service Quality Model
Chisq/df	Chi square/Degree of Freedom
SD	Standard Deviation
SPSS	Statistical Package for Social Science
SEM	Structural Equation Modelling
TLI	Tucker-Lewis Index
VE	Variance Extracted

## **LIST OF APPENDICES**

Appendix A: Survey Questionnaire

Appendix B: Distributional Statistic

Appendix C: Frequency Distribution

## **CHAPTER ONE**

### **1.1 INTRODUCTION**

The chapter begins with an overview of the Malaysian education sector accompanied with a description of the research area to be undertaken. The overview is then followed by justifications on why the research area was selected by the researcher. The problem statement, research objectives and research questions are then presented. Finally, the contributions of the research and an overview of the organisation of the research report are given.

### **1.2 BACKGROUND OF EDUCATION SERVICE SECTOR**

According to Narayanan and Hosseini (2014), service sectors consists of a mix activity ranging from informal activities to more specific activities such as knowledge-based information and communication technology (ICT), medical services and educational services. Malaysia's service sector is forecasted to be the major contributor to Malaysia's Gross Domestic Product (GDP) (Malaysia's Investment Development Authority, 2016). Strategies for the-services sector have been formulated by the government of Malaysia to enhance her competitiveness and resilience to promote the migration into high value service activities (Eleventh Malaysia Plan 2016-2020). The goal is to unlock the potential

of the services sector and transform it into a more intensified knowledge based and innovation-led (Service Sector Blueprint, 2015). The-services sector is expected to grow at 6.8% per annum which contribution will be 56.5% of GDP in 2020 as well as providing 9.3 million jobs. At present, the-services sector contributes approximately 5.1% of the GDP and is the second largest contributor to the country's real GDP (Malaysia Quarterly Economic Report 1, 2016).

In Malaysia, the education services are divided into three categories. The first and second categories are the school system and higher education. The school system consists of pre-school education, primary education and secondary education. The higher education consists of pre-university education and tertiary education. The third category is called 'lifelong learning'. Lifelong learning is define as 'the development of human potential through the ongoing process of support which stimulates and empowers individuals to acquire all the knowledge, values, skills and understanding they will need throughout their lives and apply them with confidence, creativity and enjoyment in all roles, circumstances and environments' (Longworth & Davies,1996).

This definition contains the basic elements of life-long learning that is essential to facilitate the achievement of the skills, knowledge and abilities needed for a successful life. Lifelong learning education was formalized with the launch of the 'The Blueprint on Enculturation of Lifelong Learning for Malaysia: 2011-2020' in the year of 2011 by the Ministry of Higher Education (MOHE). With the endorsement of the Ministry of Higher Education, lifelong learning is projected to be well received among Malaysians. Statistics

have shown that there is an increased interest in adults' workers to pursue tertiary education through lifelong learning.

There are various institutions involved in the provision of lifelong learning programs. A lifelong learning provider encompasses public universities; post-secondary institutions, open and distance learning institutions, the Majlis Amanah Rakyat (MARA) and various ministries. Lifelong learning is rooted from distance education. Distance learning was first introduced in Malaysia by USM in 1971 (Mohanachandran & Ramalu, 2000).

As a result, the first virtual education delivery mode was introduced by University Tun Abdul Razak in 1988 (Mohanachandran & Ramalu, 2000). In 2011, there were six primary providers of lifelong learning education offering education through an online mode complemented with other forms of delivery. The six providers were Open University Malaysia (OUM), Wawasan Open University (WOU) and Asia E-University (AEU), University Tun Abdul Razak (UNITAR), Madinah International University (MEDIU) and International Centre for Education in Islamic Finance (INCEIF).

The total number of lifelong learners throughout the year 2005-2020 is projected grow to 22.6 million or 65.9% of Malaysia's total population by 2020 (Ninth Malaysia Plan, 2005-2020). Conventional universities who had previously provided a full time delivery mode with full time class have recognised the opportunity of the online delivery market especially for lifelong learning in education and have started providing these services.

This has resulted in intense competition to the providers of online education targeting lifelong learners.

It is generally agreed that cost of maintaining current customers is cheaper than the cost of acquiring new customers (Reichheld, 1996; Reichheld & Scheffer, 2000; Athanasopoulou, 2009). In higher learning institutions the students are the customers and it imperative that the expectations of the customers are met at minimum (Burrows, 1999; Mainardes, Alves, & Raposo, 2010). The importance of customer loyalty is stressed by Stewart and Ruckdeschel (1998), in stating that customers will switch to another service provider if the current provider fails to meet the expected service (Singh, 1990).

Consequently, the research has identified constructs that are essential in determining student loyalty in online education. A brief description of the constructs applied in the research is given on the next section.

### **1.2.1 Student Loyalty**

Student Loyalty has been identified as the dependent variable in this research. Loyalty is define as ‘deeply held commitment to re-purchase or re-patronize a preferred product / service consistently in the future, thereby causing repetitive same brand or same brand-set purchasing, despite situational influence and marketing efforts having the potential to cause switching behaviour’ (Oliver, 1999). The model of Student Loyalty was initiated by Tinto (1975; 1993) 'Student Integration Model'. Tinto's model was based on the

relationship between students and higher education institutions. Tinto believes the attributes of pre-admission to universities will influence the prospects. Integration with the institution will take place in two ways, namely integration with the academic and social systems. The successful integration of students will increase their commitment to the institution and their desire to graduate. Student Loyalty is a long term commitment that needs to be nurtured by a sense of belonging among students (Helgesen & Nettet, 2007). It can be achieved by creating a good impression of the institution to society which is influenced by the service quality of the institution, student re-register for graduate's courses from the same institution and students act as recommending agents (Helgesen & Nettet, 2007). Greater Student Loyalty is caused by strong emotional relationship between students and the institution (Abdul & Bahroom, 2014). Mellens, Dekimpe and Steenkamp (1995) and Zineldin (2006) concurs that organizations gained a competitive advantage by having a high rate of Student Loyalty.

### **1.2.2 Perceived Service Quality**

Service Quality is defined as the difference between customer expectations and perceptions of performance (Parasuraman, Zeithaml & Berry, 1985). Organizations need to understand the service attributes to enable them to provide good quality services (Grönroos, 1990). Customers' evaluate service quality on the course of action that compares service expectations with customer perception of the quality of services rendered. This led to the apparent gap of Service Quality (Grönroos, 1982; Parasuraman et al. 1985). Parasuraman et al. (1985) developed Service Quality model called

SERVQUAL to measure the gap. SERVQUAL model developed based on Oliver (1980) expectation disconfirmation theory.

According to expectation disconfirmation theory, individuals who are involved in a purchase transaction will attain a level of service (Oliver 1977; Oliver 1980). There will be positive and negative disconfirmation felt when pre and post purchase evaluation is made which in turn will affect the overall satisfaction. Positive disconfirmation occurs when service performance exceeds the expectations and lead to higher satisfaction. Negative disconfirmation occurs when the service performance is below expectation that will result in lower satisfaction of customers. Oliver (1980) concluded satisfaction as the outcome of disconfirmation of performance and expectation. Parasuraman, Zeithaml and Berry (1988) and Zeithaml, Parasuraman and Berry (1990) identified five high-order dimensions related to the determinants of Service Quality. SERVQUAL model has categorized five high-order dimensions of Service Quality gaps in services, namely tangibles, reliability, responsiveness, assurance and empathy.

### **1.2.3 Perceived e-Service Quality**

According to Reynolds (2000) e-services are web-based services delivered through Internet operations where all or part of such interaction is carried out via the Internet (Surjadjaja, Ghosh & Anthony, 2003). Due to differences in characteristics between traditional service quality and electronic service quality, Riedl, Leimeister and Krcmar (2009) stated that the method of measuring the quality of e-services is also different from



the traditional Service Quality measurement. Ribbink, Van Riel, Liljander and Streukens (2004) used ease of use, website design, customization, responsiveness and assurance (Parasuraman et al. 1988) to measure e-Service Quality.

#### **1.2.4 University Image**

Image is explained as the sum of beliefs, attitudes, stereotypes, ideas, relevant behaviours or impressions that a person holds regarding an object, person, or organization (Kotler & Andreasen, 1991). It is essential for universities to have distinct images to attract and recruit students, especially in the highly competitive market (Bok, 1992; Theus, 1993; Parameswaran & Glowacki, 2008). Studies found that University Image strongly affect student retention (Bloemer & de Ruyter, 1998; Nguyen & Leblanc, 2001; Helgesen & Nettet, 2007) and significantly influence Student Loyalty (Eskildsen, Dahlgard & Norgaard, 1999).

There are many views on the University's Image. There are multi-image conceptualizations of the university setting on each individual and suggested that university image is considered as a receiver-oriented and audience-specific construct that can vary as a function of other external determining factors (Kazoleas, Kim & Anne, 2001). University Image is also considered as valuable asset to the university (Kotler & Fox, 1995; Stensaker, 2005). In searching out for university prospective students considered various emotional attachments such as emotional needs, love, power, security and sense of belonging (Sung & Yang, 2008). University can enhance positive emotional

relationship with prospective students to ensure the prospective students feel appreciated (Perna & Titus, 2005). Students perceived University Image as consisting of personality, reputation, and prestige (Sung & Yang, 2008).

### **1.3 SCOPE OF THE RESEARCH**

The present research intends to comprehensively examine the effect of Perceived Service Quality and Perceived e-service Quality on Student Loyalty in an on line distance education setting specifically at Open University Malaysia. The mediating effect of University Image on the relationship of Perceived Service Quality with Student Loyalty will be examined. Similarly the mediating effect of University Image on the relationship between Perceived e-service Quality with Student Loyalty will also be examined. The research will be quantitative in nature and the respondents of the research will be selected from 16 Learning Centres of Open University Malaysia. The sampling process will be discussed in Chapter three.

### **1.4 PROBLEM STATEMENT**

The educational sector is projected to play an important role in long-term investments that lead to a high production for a country (Ismail, 1996). The Malaysian government allocated a budget of RM56 billion to support the higher education sector in 2015. Lifelong learning is an area that has and will be emphasised in the near future. With the government financial support it is forecasted a total of 22.6 million (65.9%) lifelong

learning students will register by 2020. The opportunities and emphasis towards lifelong learning has attracted and resulted in a rapid emergence of lifelong learning providers. Starting only with six universities as providers of lifelong education, there is an additional twenty-one public university that offers distance education programme in different modes.

Potential students are now presented with a wider menu by providers who are willing to provide similar if not better services. This situation has created a very intense competition between providers. Student loyalty is essential for educational providers to sustain or grow in the education business. A high attrition rate or lack of loyalty will lead to a reduction of income to higher learning institution, additional costs of attracting new students, loss of free advertising by word of mouth, and decreased employee retention (Colgate & Norris, 2001). Student loyalty has become an important concern to the lifelong learning providers.

Research on the importance of student loyalty has received great attention from academics and practitioners (Wijaya, 2005; Mainardes, Alves & Raposo, 2010), however none specifically seem to be targeted to educational institutions providers adopting online or blended learning approach. For instance, Brown and Mazzarol (2009) investigated student loyalty using image, perceived service quality, value, and satisfaction. They found that institutions that develop strategic image would likely achieve success in service marketing. The study demonstrated the importance of institutional image as a key antecedent for consumer value perception, satisfaction and loyalty. Hennig-Thurau,

Langer and Hansen (2001) who used Perceived Service Quality, trust and commitment identified that among the main factors of student loyalty is the importance of various aspects of quality that differ significantly depending on the course of study and students' emotional commitment to their institutions.

Mainardes et al. (2010) using image, expectations, Perceived Service Quality, value, satisfaction, word-of-mouth found expectations to have a significant and negative path relationship with satisfaction. Helgesen and Nesset (2007) found that perception of the reputation and student satisfaction of the university is positively related to student loyalty. Satisfaction is positively related to the perception of the reputation of the university. This implies that in order to increase the satisfaction and the loyalty of the students, focus should be on the Perceived Service Quality, information and facilities.

Abdul and Bahroom (2014) investigated student loyalty using service quality, trust and emotional commitment. They concluded that a strong emotional connection between the student and the institution is required to produce a strong relationship that results in greater loyalty. Goolamally and Abdul (2014) found that service quality, satisfaction, trust, emotional commitments are the key determinants of student loyalty. The majority of past research has used corporate image (Mohamad & Awang, 2009) and university Image as independent constructs (Helgesen & Nesset, 2007; Mainardes et al. 2010; Kheiry, Rad & Asgari, 2012). Research investigating the mediating effect of corporate image on the relationship between customer satisfaction and customer loyalty conducted by Cheng and Rashid (2013) in the hospitality industry in Malaysia indicated that

corporate image acts as a partial mediator on the relationship between these constructs. Li and Hung (2009) used school's image as a mediator between marketing mix strategy and parents' loyalty. Result indicated that school image was an effective predictor of parents' behaviour and school image mediates the relationship between marketing tactics and parents' loyalty. Nevertheless, the impact of University Image has not been thoroughly researched and there is little empirical evidence to suggest that University Image has a mediating effect on the relationship between Perceived Service Quality and customer loyalty, especially in the context of universities in Malaysia (Li & Hung, 2009).

Research on the antecedents of brand loyalty in the educational sector has concentrated more on perceived service quality and none can be found to the best of the author's knowledge and research applying perceived e-service quality specifically in Malaysia. Additionally research on the educational sector has primarily been done or focus towards the conventional full time class delivery mode with full time students. There seems to be a gap on literature on the antecedents of student loyalty for part time students with a blended mode of delivery. Research on the determinants of student loyalty in lifelong learning education faced the same issue (Abdul, 2004). This research is undertaken to address the gaps in the literature.

The market size and growth potential of lifelong learning via an online mode makes the research area an important area to be studied. The intense competition, the challenges of delivering education to a diverse profile of students or learners in lifelong learning strengthen the need for a research study to be undertaken in the particular area.

## **1.5 RESEARCH OBJECTIVES**

The main objective of this study is to determine the factors that affect Student Loyalty.

The research objectives are as follows;

Research Objective 1:

To examine the relationship between Perceived Service Quality and Student Loyalty

Research Objective 2:

To examine the relationship between Perceived e-Service Quality and Student Loyalty

Research Objective 3:

To examine the relationship between University Image and Student Loyalty

Research Objective 4:

To examine the relationship between Perceived Service Quality and University Image

Research Objective 5:

To examine the relationship between Perceived e-Service Quality and University Image

Research Objective 6:

To investigate if University Image mediates between Perceived Services Quality and Student Loyalty

Research Objective 7:

To investigate if University Image mediates between Perceived e-Service Quality and Student Loyalty

## **1.6 RESEARCH QUESTIONS**

The following research questions have been developed to achieve the research objectives:

Research Question 1:

What is the relationship between Perceived Services Quality and Student Loyalty?

Research Question 2:

What is the relationship between Perceived e-Service Quality and Student Loyalty?

Research Question 3:

What is the relationship between University Image and Student Loyalty?

Research Objective 4:

What is the relationship between Perceived Service Quality and University Image?

Research Objective 5:

What is the relationship between Perceived e-Service Quality and University Image?

Research Question 6:

Does University Image mediate the relationship between Perceived Service Quality and Student Loyalty?

Research Question 7:

Does University Image mediate the relationship between Perceived e-service Quality and Student Loyalty?

## **1.7 RESEARCH CONTRIBUTION**

The research will contribute in terms of theory, methodology and practicality. In terms of theory the research will contribute to academics by providing the additional knowledge in student consumer behaviour. Valuable knowledge on the antecedents of student loyalty, specifically on service quality and university image in an online learning environment for lifelong learning will be obtained. The research enhances the understanding of the determinants of student loyalty by improving what already exists.

In addition, the research also contributes to the knowledge concerning methodology. Although the research applies the prescriptions of previous researchers and used a previously published method to a new body of data, the most prevalent methodological challenge is the intertemporal choice in terms of measuring the constructs being investigated. The development of a valid and reliable measurement scale specific to online distance learners will provide future researchers a more parsimonious measurement scale to be used for future research.



In terms of practically, the direct beneficiary of this research will be all online distance learning educational service providers providing online mode of delivery for lifelong learners specifically Open University Malaysia (OUM). This study will contribute to an increase in the understanding of student loyalty with recommendation on what actions should be undertaken to increase student loyalty. While previous study has revealed the outcomes of loyalty in various industries the potential role of student loyalty has not been systematically analyzed in the context of lifelong learning environment in Malaysia.

## **1.8 DEFINITIONS OF TERMS**

The following terms are defined for the purpose of this study:

**Assurance:** Is the knowledge and courtesy of staff and their ability to convey trust and confidence (Zeithaml et al. 1990).

**Blended Mode:** Blended learning is an approach to teaching and learning that combines different methods, technologies and resources to improve student learning, they also emphasized the student-centered approach, offering autonomy and flexibility (Commonwealth of Learning, 2015).

**Construct:** Construct is the personal characteristic to be assessed. It is a proposed attribute of a person that often cannot be measured directly but can be assessed using a number of indicators or manifest variables (Cronbach & Meehl, 1955; 1998).

Customer loyalty: Is the mind-set of the customers, who hold favourable attitudes toward a company, commit to repurchase the company's product / service, and recommend the product / service to others (Zeithaml et al. 1996).

Empathy: Is caring and individualized attention (Zeithaml et al. 1990).

Endogenous Construct: The latent, multi-item equivalent of a dependent variable. It is determined by constructs or variables within the model and thus it is dependent on other constructs (Malhotra, 2010).

E-Services: A provision of electronic services to customers (Saanen, Sol & Verbraeck, 1999).

Exogenous Construct: Is the latent, multi-item equivalent of an independent variable in traditional multivariate analysis. An exogenous construct is determined by factors outside of the model and it cannot be explained by any other construct or variable in the model (Malhotra, 2010).

Image: Is the sum of beliefs, attitudes, stereotypes, ideas, relevant behaviours or impressions that a person holds regarding an object, person, or organization (Kotler & Andreasen, 1991).

Loyalty: Is define as ‘deeply held commitment to re-purchase or re-patronize a preferred product / service consistently in the future, thereby causing repetitive same brand or same brand-set purchasing, despite situational influence and marketing efforts having the potential to cause switching behaviour’ (Oliver, 1999).

Population: The aggregate of all the elements, sharing some common set of characteristics that comprises the universe for the purpose of the research (Malhotra, 2010).

Reliability: Is the ability to perform promised service dependably and accurately (Zeithaml et al. 1990).

Responsiveness: Is the willingness to help customers to provide prompt service (Zeithaml et al. 1990).

Service quality: Is defined as the difference between customer expectations and perceptions of performance (Parasuraman et al. 1985).

Tangibles: Is the appearance of physical facilities, equipment, personnel, printed and visual materials (Zeithaml et al.1990).

## **1.9 ORGANIZATION OF THE REPORT**

This section provides a brief review of the structure of the dissertation. The research report consists of five chapters.

Chapter 1 provides background of research, problem statement, research questions and research objectives, significance and scope of study into the body of knowledge.

Chapter 2 reviews the existing literature relating to constructs in the research. It critically reviews the relevant literature relating to the constructs that forms the theoretical framework of the research. It explains the relationship between the chosen constructs. The theoretical framework is proposed and the developments of the hypothesis are presented in this chapter.

Chapter 3 discusses the research methodology that will be used to study research design, operationalization of constructs, reliability and validity of constructs. This chapter concludes by discussing methods for analyzing research data and testing research hypotheses.

Chapter 4 presents research data, and interprets and reports the results of data analysis. This chapter discussed the respondents' demographics background. Structural Equation Modelling will be used to test hypotheses in the research model.

Finally, Chapter 5 provides research findings and implications of management and theoretical research. Suggestions for future research conclude this chapter.

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# **APPENDIX A**

## **Survey Questionnaire**

## **QUESTIONNAIRE**

Dear Respondent,

I am conducting a research on consumer behavior of students at Open University Malaysia. This study is undertaken to fulfill the partial requirement of the academic programme leading to Doctorate of Business Administration (Marketing) offered by Open University Malaysia. The questionnaire will take you less than 15 minutes to complete. All the information provided will be treated with utmost confidentiality. The information will be used for research purposes only.

Thank you in advance for your support and the valuable time taken in completing this questionnaire. Should you have any queries, please do not hesitate to contact me.

Yours sincerely,

Yon Rosli Bin Daud  
rosli\_daud@oum.edu.my  
017-273 5027

## **SOAL SELIDIK**

Responden yang dihormati,

Saya sedang menjalankan kajian gelagat pengguna dikalangan pelajar di Universiti Terbuka Malaysia. Kajian ini dijalankan bagi memenuhi sebahagian daripada keperluan program akademik yang menjurus kepada Doktor Pengurusan Perniagaan (Pemasaran) yang ditawarkan oleh Open University Malaysia. Soalan kajiselidik ini akan mengambil masa anda kurang dari 15 minit untuk dilengkapkan. Semua maklumat yang diberikan akan dijaga dan dikawal dengan penuh kerahsiaan. Semua maklumat akan hanya digunakan untuk tujuan kajian sahaja.

Terima kasih kerana memberi sokongan serta menyumbang masa yang bernilai bagi melengkapkan soal selidik ini. Sekiranya anda mempunyai sebarang pertanyaan, mohon berhubung terus dengan saya.

Yang ikhlas,

Yon Rosli Bin Daud  
rosli\_daud@oum.edu.my  
017-273 5027

## **Part A**

**Instruction: Please circle the number that indicates how much you agree or disagree with each statement. Circle one appropriate number for each statement.**

*Arahan: Sila bulatkan nombor yang menunjukkan sebanyak mana anda bersetuju atau tidak bersetuju dengan setiap kenyataan. Bulatkan satu nombor yang sesuai bagi setiap kenyataan.*

**1 = Strongly Disagree,    2 = Disagree,    3 = Neutral,    4 = Agree,    5 = Strongly Agree**  
*1 = Sangat Tidak Setuju,    2 = Tidak setuju,    3 = Neutral,    4 = Setuju,    5 = Sangat Setuju*

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. OUM has up-to-date equipment. <i>OUM mempunyai peralatan yang terkini.</i>	1	2	3	4	5
2. OUM physical facilities are visually appealing. <i>OUM mempunyai kemudahan fizikal yang menarik dipandang.</i>	1	2	3	4	5
3. OUM employees are well-dressed and appear neat. <i>Kakitangan OUM berpakaian kemas dan kelihatan kemas.</i>	1	2	3	4	5
4. The appearance of the physical facilities of OUM is in keeping with the type of services provided. <i>Penampilan kemudahan fizikal OUM adalah selaras dengan jenis perkhidmatan yang disediakan.</i>	1	2	3	4	5
5. When OUM promises to do something by a certain time, it does so. <i>Apabila OUM berjanji untuk melakukan sesuatu dalam masa yang ditetapkan, ia berbuat demikian.</i>	1	2	3	4	5
6. When I have a problem, OUM shows keen and sincere interest in resolving it. <i>Apabila saya mempunyai masalah, OUM menunjukkan minat yang mendalam dan ikhlas untuk menyelesaikannya.</i>	1	2	3	4	5

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
7. OUM is dependable. <i>OUM boleh diharapkan.</i>	1	2	3	4	5
8. OUM provides its service at the time it promised. <i>OUM menyediakan perkhidmatan pada masa yang dijanjikan.</i>	1	2	3	4	5
9. OUM insists on error-free records. <i>OUM tegas dalam memastikan rekodnya bebas daripada kesilapan.</i>	1	2	3	4	5
10. OUM employees tell me exactly when services will be rendered. <i>Kakitangan OUM memberitahu saya secara tepat bila perkhidmatan akan diberikan.</i>	1	2	3	4	5
11. OUM employees give me prompt service. <i>Kakitangan OUM memberi saya perkhidmatan yang cepat.</i>	1	2	3	4	5
12. OUM employees are always willing to help customers. <i>Kakitangan OUM sentiasa bersedia untuk membantu pelanggan.</i>	1	2	3	4	5
13. OUM employees are always ready to respond to my requests. <i>Kakitangan OUM sentiasa bersedia untuk melayan permintaan saya.</i>	1	2	3	4	5
14. I can trust OUM employees. <i>Saya boleh mempercayai kakitangan OUM.</i>	1	2	3	4	5
15. I feel safe when I perform any transactions with OUM employees. <i>Saya berasa selamat apabila saya melaksanakan apa-apa urusan niaga dengan pekerja OUM.</i>	1	2	3	4	5
16. OUM employees are polite. <i>Kakitangan OUM adalah sopan.</i>	1	2	3	4	5

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
17. OUM provides adequate support to their employees to do their job well. <i>OUM memberi sokongan yang mencukupi kepada kakitangannya untuk melakukan kerja mereka dengan baik.</i>	1	2	3	4	5
18. OUM gives me individual attention. <i>OUM memberikan saya perhatian secara individu.</i>	1	2	3	4	5
19. OUM employees give me personal attention. <i>Kakitangan OUM memberikan saya perhatian peribadi.</i>	1	2	3	4	5
20. OUM employees understand my needs. <i>Kakitangan OUM memahami keperluan saya.</i>	1	2	3	4	5
21. OUM has my best interests at heart. <i>OUM mengutamakan kepentingan saya.</i>	1	2	3	4	5
22. OUM has operating hours convenient for all customers. <i>OUM mempunyai waktu operasi yang sesuai untuk semua pelanggan.</i>	1	2	3	4	5
23. It is easy to access the OUM website, through which I obtain online services. <i>Adalah mudah untuk mendapatkan akses ke laman web OUM untuk mendapat perkhidmatan dalam talian.</i>	1	2	3	4	5
24. OUM's website is user-friendly. <i>Laman web OUM adalah mesra pengguna.</i>	1	2	3	4	5
25. Navigating the OUM website is easy. <i>Adalah mudah untuk menavigasi laman web OUM.</i>	1	2	3	4	5
26. It is easy to find my way on the OUM website. <i>Adalah mudah untuk saya melayari laman web OUM.</i>	1	2	3	4	5

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
27. The information on the OUM website is attractively displayed. <i>Paparan maklumat di dalam laman web OUM adalah menarik.</i>	1	2	3	4	5
28. The information in the OUM website is well organized. <i>Maklumat yang terdapat di dalam laman web OUM disusun secara teratur.</i>	1	2	3	4	5
29. The information in the OUM website is easy to understand and follow. <i>Maklumat di dalam laman web OUM adalah mudah untuk difahami dan diikuti.</i>	1	2	3	4	5
30. OUM's website and colors are appealing. <i>Laman web dan warna-warna yang digunakan adalah menarik.</i>	1	2	3	4	5
31. It is easy to seek information about education services from OUM because it provides an e-learning platform. <i>Adalah mudah untuk mendapatkan maklumat tentang perkhidmatan pendidikan dari OUM kerana ia menyediakan platform e-pembelajaran.</i>	1	2	3	4	5
32. OUM is interested in getting feedback. <i>OUM berminat untuk mendapatkan maklum balas.</i>	1	2	3	4	5
33. OUM online website is prompt in replying to queries. <i>Laman web OUM sentiasa cepat dalam menjawab pertanyaan.</i>	1	2	3	4	5
34. The website informs me what to do if my transaction is not processed. <i>Laman web itu memberitahu saya apa yang perlu dilakukan sekiranya transaksi yang saya lakukan tidak diproses.</i>	1	2	3	4	5

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
35. I feel my education needs are met when using the site or doing transactions with OUM. <i>Saya rasa keperluan pendidikan saya dipenuhi apabila menggunakan laman web ini atau melakukan urus niaga dengan OUM.</i>	1	2	3	4	5
36. I feel the norms and values OUM are similar to my norms and values. <i>Saya rasa norma-norma dan nilai-nilai OUM adalah sama dengan norma-norma dan nilai-nilai saya.</i>	1	2	3	4	5
37. OUM website provides information on academic matters according to my needs. <i>Laman web OUM menyediakan maklumat mengenai program akademik pilihan saya.</i>	1	2	3	4	5
38. OUM website satisfies my needs concerning administrative matters. <i>Laman web OUM memenuhi keperluan saya mengenai hal-hal pentadbiran.</i>	1	2	3	4	5
39. I feel secure about the OUM electronic learning platform. <i>Saya rasa selamat tentang platform pembelajaran elektronik di OUM.</i>	1	2	3	4	5
40. I feel secure when providing private information to OUM. <i>Saya rasa selamat apabila memberikan maklumat peribadi kepada OUM.</i>	1	2	3	4	5
41. I find the OUM online system secure when conducting online transactions. <i>Saya merasakan sistem atas talian OUM adalah selamat apabila menjalankan urus niaga dalam talian.</i>	1	2	3	4	5
42. I would encourage others to become students at OUM. <i>Saya akan menggalakkan orang lain untuk menjadi pelajar di OUM.</i>	1	2	3	4	5



	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
43. I would recommend OUM to my relatives, friends and others. <i>Saya akan mengesyorkan OUM kepada saudara-mara, rakan-rakan dan orang lain.</i>	1	2	3	4	5
44. I would encourage others to enroll in OUM. <i>Saya akan menggalakkan orang lain untuk mendaftar di OUM.</i>	1	2	3	4	5
45. I consider OUM as my first choice to obtain the academic qualification I need. <i>Saya menganggap OUM sebagai pilihan pertama untuk mendapatkan kelayakan akademik yang saya perlukan.</i>	1	2	3	4	5
46. I will enroll in OUM when I need higher qualifications in the future. <i>Saya akan mendaftar di OUM apabila saya memerlukan kelayakan yang lebih tinggi di masa hadapan.</i>	1	2	3	4	5
47. I am willing to stay with OUM even if the academic programme fees are raised. <i>Saya bersedia untuk kekal bersama OUM walaupun yuran program akademik dinaikkan.</i>	1	2	3	4	5
48. I am willing to stay with OUM even if its fees are more expensive than those of its competitors. <i>Saya bersedia untuk kekal bersama OUM walaupun bayaran perkhidmatannya adalah lebih mahal daripada pesaing-pesaingnya.</i>	1	2	3	4	5
49. I would recommend my programme to others. <i>Saya akan mengesyorkan program saya kepada orang lain.</i>	1	2	3	4	5
50. I would recommend OUM to others. <i>Saya akan mengesyorkan OUM kepada orang lain.</i>	1	2	3	4	5

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
51. I am very interested in keeping in touch with OUM even after graduation. <i>Saya amat berminat untuk terus berhubung dengan OUM walaupun selepas tamat pengajian.</i>	1	2	3	4	5
52. If I am faced with the same choices again, I would still choose OUM. <i>Jika saya berhadapan dengan pilihan yang sama sekali lagi, saya masih akan memilih OUM.</i>	1	2	3	4	5
53. I would become a member of OUM alumni. <i>Saya akan menjadi ahli alumni OUM.</i>	1	2	3	4	5
54. I believe people have a good impression of OUM. <i>Saya percaya orang ramai mempunyai gambaran yang baik tentang OUM.</i>	1	2	3	4	5
55. In general, my friends or relatives have a positive image of OUM. <i>Secara amnya, rakan-rakan atau saudara-mara saya mempunyai pandangan positif tentang imej OUM.</i>	1	2	3	4	5
56. My circle of acquaintances has a good impression towards OUM. <i>Kenalan-kenalan saya mempunyai tanggapan yang baik terhadap OUM.</i>	1	2	3	4	5
57. OUM has a better image as compared to other Open and Distance Learning Universities. <i>OUM mempunyai imej yang lebih baik daripada Universiti Terbuka dan Jarak Jauh yang lain.</i>	1	2	3	4	5
58. The general public has a good overall image towards OUM. <i>Masyarakat umum mempunyai imej keseluruhan yang baik terhadap OUM.</i>	1	2	3	4	5

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>
59. Employers have a positive image towards OUM. <i>Majikan mempunyai pandangan positif tentang imej OUM.</i>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
60. Overall, the image of OUM is good. <i>Secara amnya, OUM mempunyai imej yang baik.</i>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

**Thank you for your participation.**

## **Part B**

**Instruction: Please tick ( ✓ ) in the appropriate bracket that applies to you.**

*Arahan: Sila tandakan ( ✓ ) dalam kurungan yang sesuai untuk anda.*

**1. Gender / Jantina**

(       ) Male / *Lelaki*                      (       ) Female / *Perempuan*

**2. Race / Bangsa**

(       ) Malay / *Melayu*                      (       ) Indian / *India*

(       ) Chinese / *Cina*                      (       ) Others / *Lain-lain*

**3. Age / Umur**

(       ) ≤ 20                                      (       ) 21 - 25                                      (       ) 26 - 30

(       ) 31 - 35                                      (       ) 36 - 40                                      (       ) 41 - 45

(       ) 46 - 50                                      (       ) 51 - 55                                      (       ) 56 - 60

(       ) 61 - 65                                      (       ) ≥ 65

**4. Highest education level before enrolling at OUM / Tahap pendidikan tertinggi sebelum memasuki OUM**

(       ) Lower than SPM                      (       ) SPM or                      (       ) STPM or  
Kurang dari SPM                      Equivalent /                      Equivalent  
SPM atau setara                      / STPM  
atau  
setara

(       ) Diploma                      (       ) Degree / *Sarjana*                      (       ) Master /  
Muda                      *Sarjana*

**5. Programme pursued at OUM / Program yang diambil di OUM**

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**6. Faculty / Fakulti**

(      )	Faculty of Applied Social Sciences (FASS)	(      )	Faculty of Nursing and Allied Health Sciences (FONAS)	(      )	OUM Business School (OUMBS)
(      )	Faculty of Education and Languages (FEL)	(      )	Faculty of Science and Technology (FST)		

**7. Learning Centre / Pusat Pembelajaran**

---

**8. Years at OUM / Sudah Berapa tahun belajar di OUM**

---

**9. Entry / Kemasukan**

(      )	Flexible Entry (FE) or Accreditation of Prior Experiential Learning (APEL) <i>Kemasukan Fleksibel atau Akreditasi Pembelajaran Berasaskan Pengalaman Terdahulu</i>	(      )	Normal Entry / <i>Kemasukan biasa</i>
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**10. Household Monthly Income / Pendapatan isi rumah sebulan**

(      )	≤ RM 2,000	(      )	RM 2,001 – RM 4,000	(      )	RM 4,001 – RM 6,000
(      )	RM 6,001 – RM 8,000	(      )	RM 8,001 – RM 10,000	(      )	RM 10,001 – RM 12,000
(      )	> RM 12,000				

**Thank You / Terima Kasih**

**APPENDIX B**  
**Distributional Statistics -**  
**Homoscedasticity**  
**Normal P-Plot**

## 1. Distributional Statistics

### Summary of Distributional Statistics for Constructs

	Mean	Std. Deviation	Skewness	Kurtosis
MPSQ	3.78	0.51	-0.21	0.41
MPESQ	3.73	0.40	-0.20	0.43
MSL	3.74	0.44	-0.15	0.12
MUI	3.86	0.41	-0.09	0.23
MPBSQ	3.77	0.37	-0.19	0.48

## 2. Test of Homoscedasticity

### A. Perceived Service Quality and Student Loyalty

#### Variables Entered/Removed<sup>a</sup>

Model	Variables Entered	Variables Removed	Method
1	MPSQ <sup>b</sup>	.	Enter

a. Dependent Variable: MSL

b. All requested variables entered.

#### Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.53 <sup>a</sup>	0.28	0.28	0.37

a. Predictors: (Constant), MPSQ

b. Dependent Variable: MSL

#### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	41.93	1	41.93	294.75	0.000 <sup>b</sup>
	Residual	106.70	750	0.14		
	Total	148.63	751			

a. Dependent Variable: MSL

b. Predictors: (Constant), MPSQ

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.99	0.10		19.39	0.000
MPSQ	0.46	0.03	0.53	17.17	0.000

a. Dependent Variable: MSL

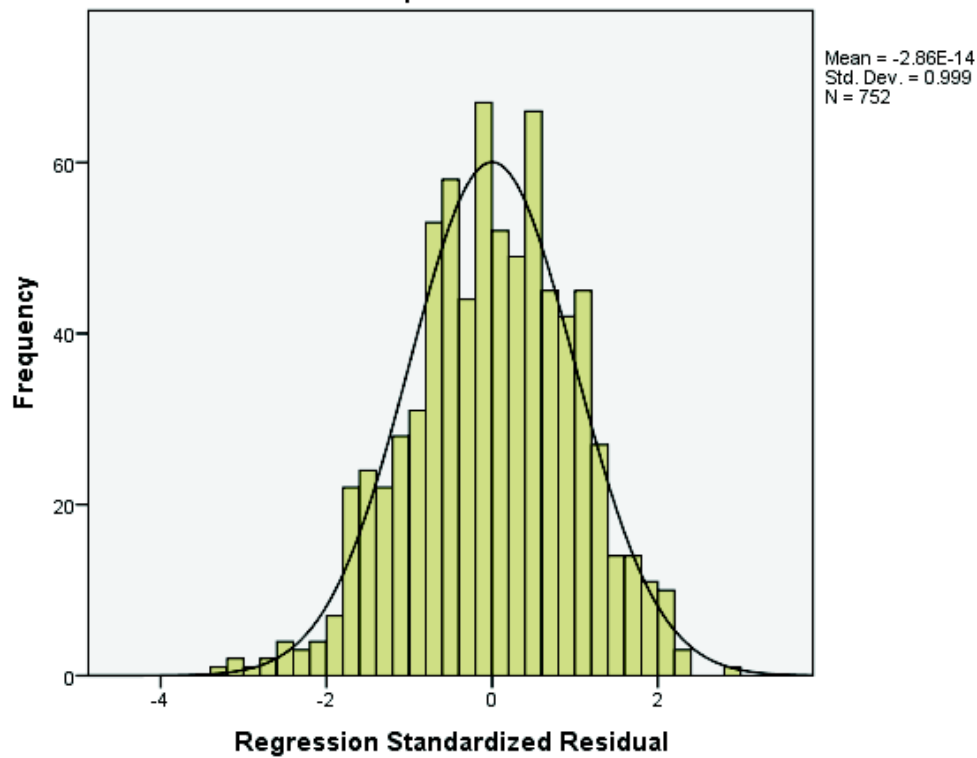
**Residuals Statistics<sup>a</sup>**

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2.85	4.27	3.74	0.24	752
Residual	-1.26	1.09	0.00	0.38	752
Std. Predicted Value	-3.75	2.22	0.00	1.00	752
Std. Residual	-3.33	2.89	0.00	0.99	752

a. Dependent Variable: MSL

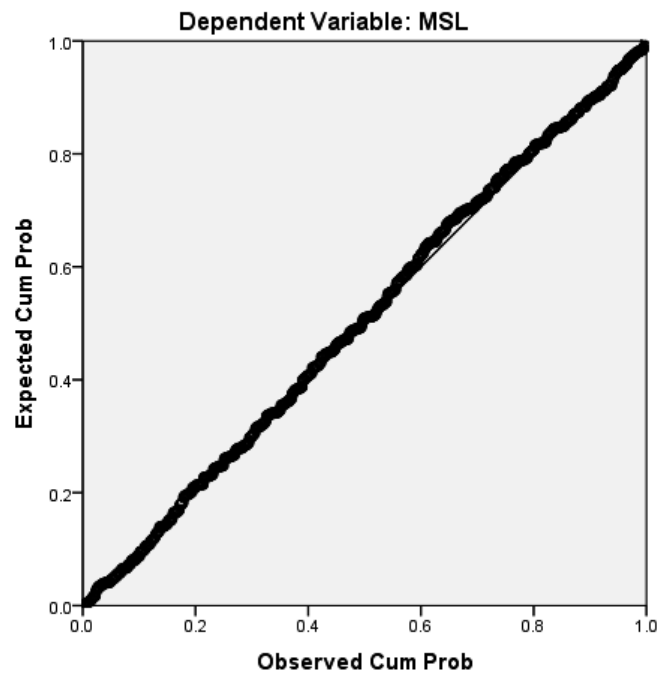
**Histogram**

Dependent Variable: MSL

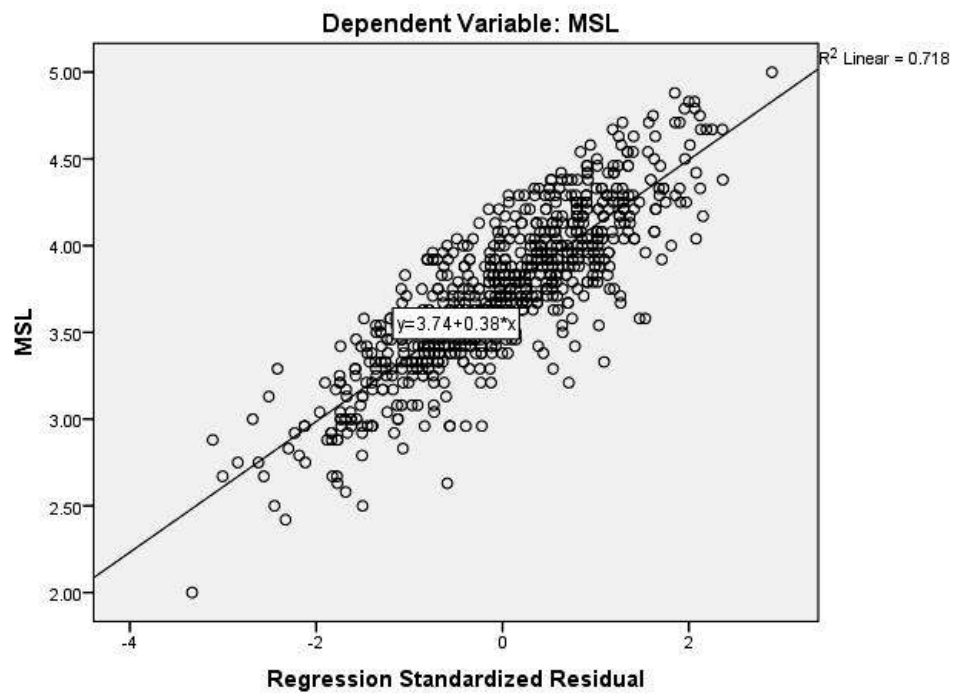




Normal P-P Plot of Regression Standardized Residual



Scatterplot



## B. Perceived e-Service Quality and Student Loyalty

### Variables Entered/Removed<sup>a</sup>

Model	Variables Entered	Variables Removed	Method
1	MPESQ <sup>b</sup>	.	Enter

a. Dependent Variable: MSL

b. All requested variables entered.

### Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.70 <sup>a</sup>	0.50	0.49	0.32

a. Predictors: (Constant), MPESQ

b. Dependent Variable: MSL

### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	73.42	1	73.42	732.08	0.000 <sup>b</sup>
	Residual	75.21	750	0.10		
	Total	148.63	751			

a. Dependent Variable: MSL

b. Predictors: (Constant), MPESQ

### Coefficients<sup>a</sup>

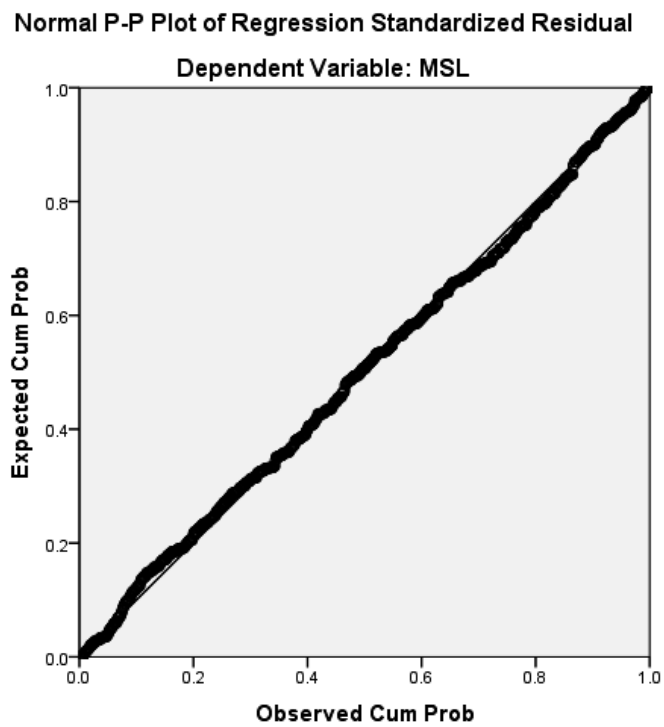
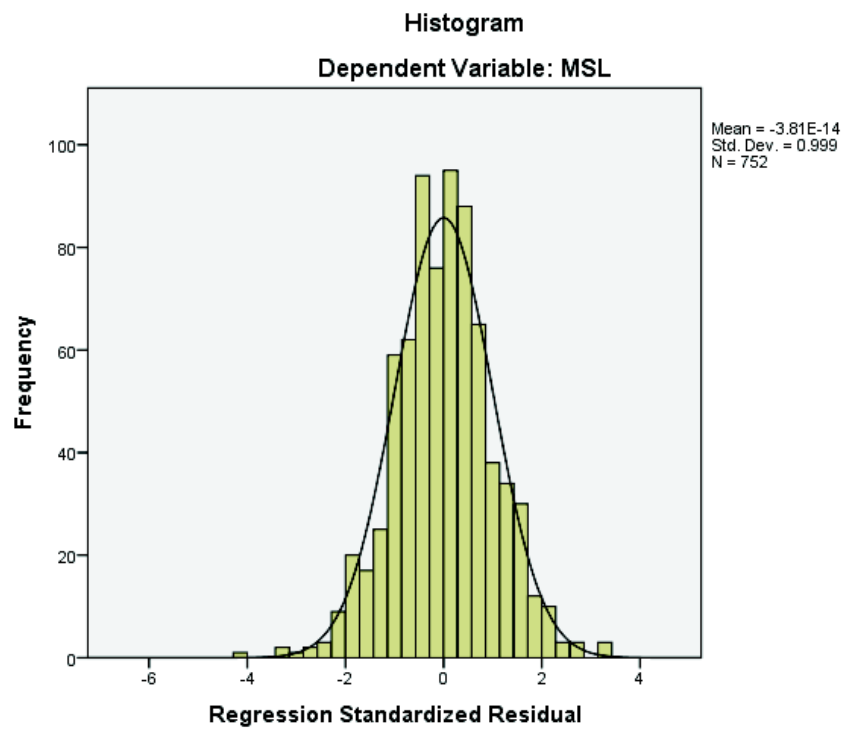
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.83	0.11		7.62	0.000
	MPESQ	0.78	0.03	0.70	27.06	0.000

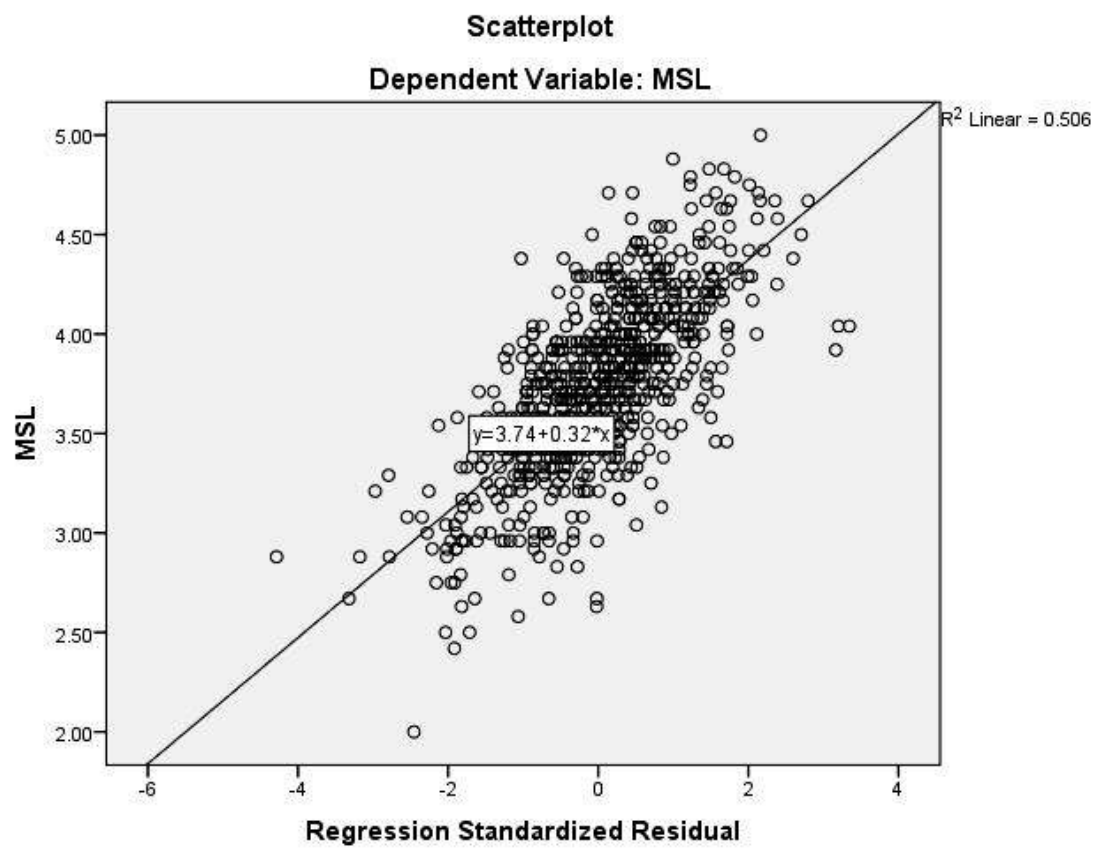
a. Dependent Variable: MSL

### Residuals Statistics<sup>a</sup>

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2.64	4.71	3.74	0.31	752
Residual	-1.36	1.06	0.00	0.32	752
Std. Predicted Value	-3.53	3.09	0.00	1.00	752
Std. Residual	-4.29	3.35	0.00	0.99	752

a. Dependent Variable: MSL





### C. University Image and Student Loyalty

**Variables Entered/Removed<sup>a</sup>**

Model	Variables Entered	Variables Removed	Method
1	MUI <sup>b</sup>	.	Enter

a. Dependent Variable: MSL

b. All requested variables entered.

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.73 <sup>a</sup>	0.53	0.53	0.31

a. Predictors: (Constant), MUI

b. Dependent Variable: MSL

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	78.13	1	78.13	831.21	0.000 <sup>b</sup>
	Residual	70.50	750	0.09		
	Total	148.63	751			

a. Dependent Variable: MSL

b. Predictors: (Constant), MUI

**Coefficients<sup>a</sup>**

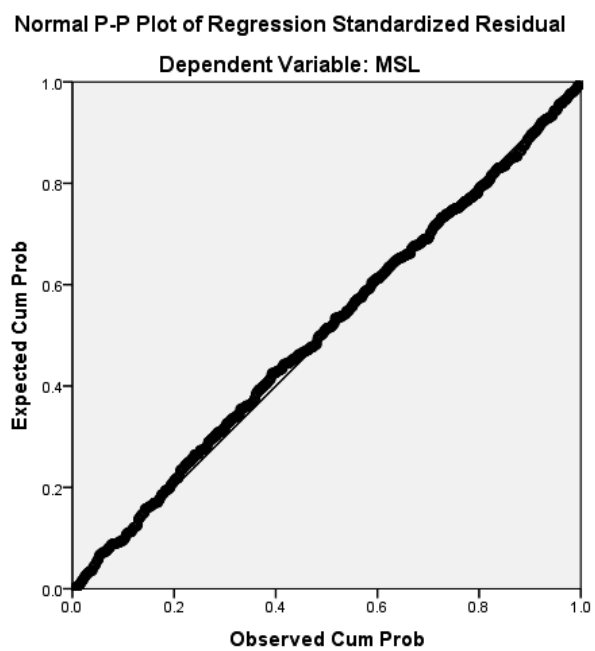
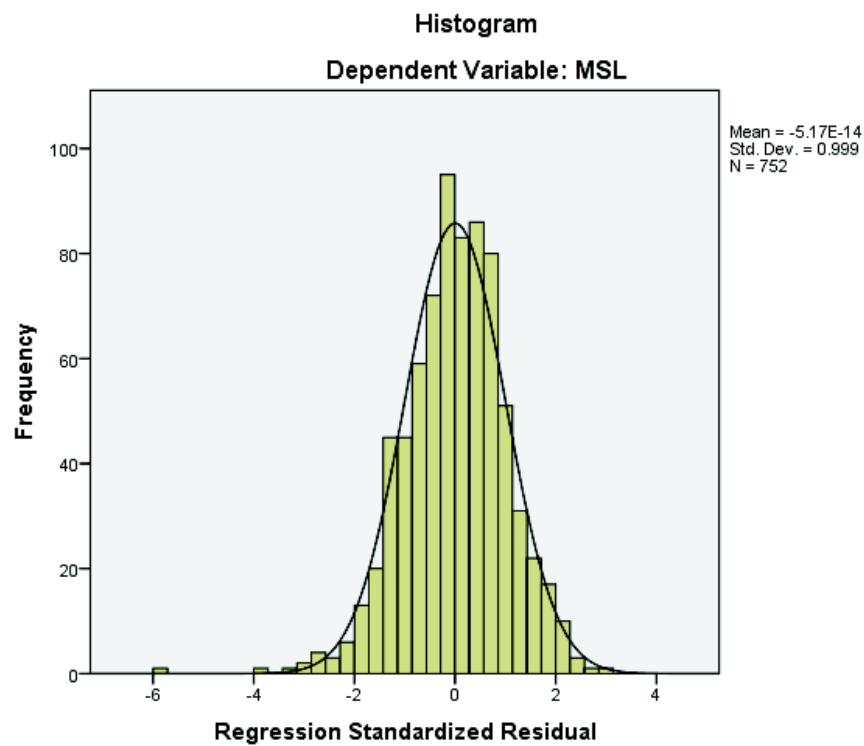
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.74	0.11		7.05	0.000
	MUI	0.78	0.03	0.73	28.83	0.000

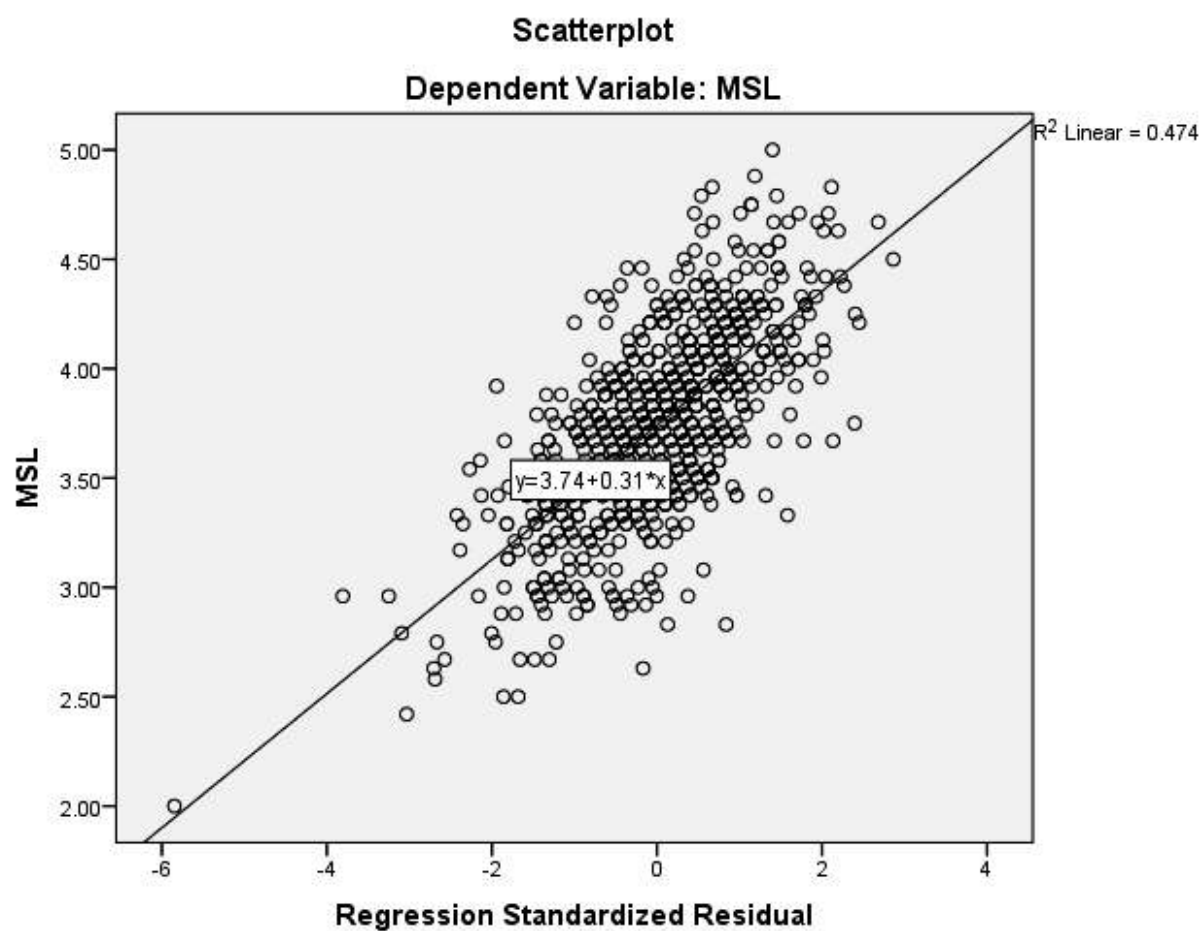
a. Dependent Variable: MSL

**Residuals Statistics<sup>a</sup>**

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2.5727	4.6250	3.7408	.32255	752
Residual	-1.79320	.87783	.00000	.30639	752
Std. Predicted Value	-3.621	2.741	.000	1.000	752
Std. Residual	-5.849	2.863	.000	.999	752

a. Dependent Variable: MSL





# **APPENDIX C**

## **Frequency Distribution**



**Appendix C: Frequency Distribution For Perceived Service Quality**

		OUM has up-to-date equipment.	OUM physical facilities are visually appealing.	OUM employees are well-dressed and appear neat.	The appearance of the physical facilities of OUM is in keeping with the type of services provided.	When OUM promises to do something by a certain time, it does so.	When I have a problem, OUM shows keen and sincere interest in resolving it.	OUM is dependable.	OUM provides its service at the time it promised.	OUM insists on error-free records.	OUM employees tell me exactly when services will be rendered.
N	Valid	752	752	752	752	752	752	752	752	752	752
	Missing	0	0	0	0	0	0	0	0	0	0
Mean		3.68	3.65	4.00	3.73	3.60	3.87	3.88	3.79	3.68	3.78
Std. Deviation		0.76	0.73	0.72	0.71	0.81	0.80	0.77	0.81	0.75	0.79
Skewness		-0.40	-0.18	-0.35	-0.32	-0.34	-0.58	-0.30	-0.45	-0.29	-0.39
Std. Error of Skewness		0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
Kurtosis		0.42	0.17	0.00	0.29	0.26	0.57	-0.20	0.33	0.28	0.18
Std. Error of Kurtosis		0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18

**Appendix C: Frequency Distribution For Perceived Service Quality (Continue)**

	OUM employees give me prompt service.	OUM employees are always willing to help customers.	OUM employees are always ready to respond to my requests.	I can trust OUM employees.	I feel safe when I perform any transactions with OUM employees.	OUM employees are polite.	OUM provides adequate support to their employees to do their job well.	OUM gives me individual attention.	OUM employees give me personal attention.	OUM employees understand my needs.	OUM has my best interests at heart.	OUM has operating hours convenient for all customers.
N	752	752	752	752	752	752	752	752	752	752	752	752
Valid												
Missing	0	0	0	0	0	0	0	0	0	0	0	0
Mean	3.80	4.00	3.90	3.95	3.89	4.07	3.74	3.54	3.50	3.61	3.59	3.82
Std. Deviation	0.81	0.74	0.79	0.75	0.72	0.72	0.71	0.80	0.79	0.79	0.77	0.77
Skewness	-0.47	-0.42	-0.35	-0.32	-0.19	-0.49	-0.10	-0.17	-0.07	-0.10	-0.09	-0.48
Std. Error of Skewness	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
Kurtosis	0.29	0.28	0.04	-0.17	-0.17	0.40	0.01	0.31	0.16	-0.06	0.00	0.47
Std. Error of Kurtosis	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18

**Appendix C: Frequency Distribution For Perceived E-Service Quality**

	It is easy to access the OUM website, through which I obtain online services.	OUM's website is user-friendly.	Navigating the OUM website is easy.	It is easy to find my way on the OUM website.	The information on the OUM website is attractively displayed.	The information in the OUM website is well organized.	The information in the OUM website is easy to understand and follow.	OUM's website and colors are appealing.	It is easy to seek information about education services from OUM because it provides an e-learning platform.	OUM is interested in getting feedback.
N	752	752	752	752	752	752	752	752	752	752
Valid	0	0	0	0	0	0	0	0	0	0
Missing										
Mean	3.82	3.78	3.76	3.84	3.72	3.79	3.81	3.74	3.83	3.67
Std. Deviation	0.82	0.88	0.85	0.85	0.79	0.77	0.78	0.77	0.73	0.76
Skewness	-0.57	-0.55	-0.59	-0.57	-0.33	-0.45	-0.39	-0.40	-0.23	-0.14
Std. Error of Skewness	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
Kurtosis	0.52	0.34	0.59	0.44	0.24	0.48	0.17	0.41	-0.08	-0.03
Std. Error of Kurtosis	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18

**Appendix C: Frequency Distribution For Perceived E-Service Quality (Continue)**

	OUM online website is prompt in replying to queries.	The website informs me what to do if my transaction is not processed.	I feel my education needs are met when using the site or doing transactions with OUM.	I feel the norms and values OUM are similar to my norms and values.	OUM website provides information on academic matters according to my needs.	OUM website satisfies my needs concerning administrative matters.	I feel secure about the OUM electronic learning platform.	I feel secure when providing private information to OUM.	I find the OUM online system secure when conducting online transactions.
N	Valid	752	752	752	752	752	752	752	752
	Missing	0	0	0	0	0	0	0	0
Mean	3.58	3.58	3.67	3.65	3.82	3.72	3.73	3.73	3.74
Std. Deviation	0.78	0.80	0.73	0.71	0.72	0.73	0.74	0.72	0.74
Skewness	-0.11	-0.15	-0.12	-0.04	-0.26	-0.26	-0.14	-0.07	0.03
Std. Error of Skewness	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
Kurtosis	0.05	0.04	-0.01	-0.13	0.06	0.12	-0.16	-0.30	-0.49
Std. Error of Kurtosis	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18

**Appendix C: Frequency Distribution For University Image**

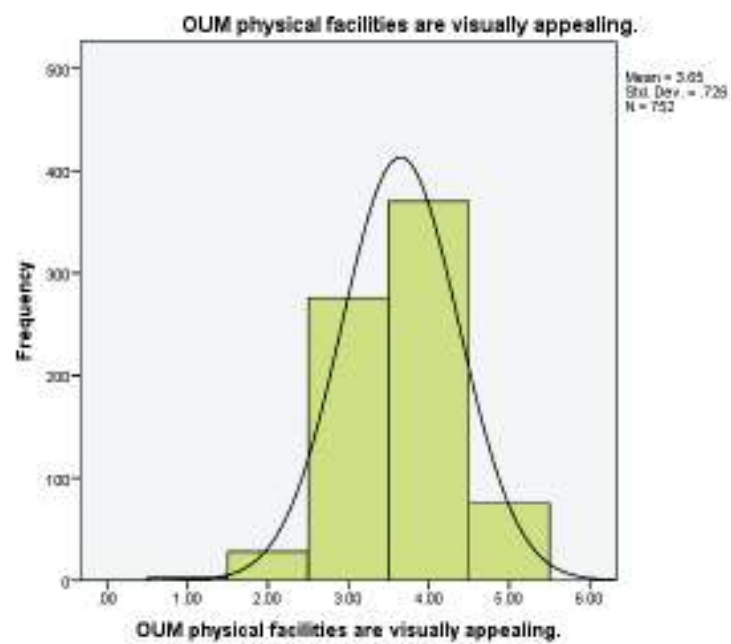
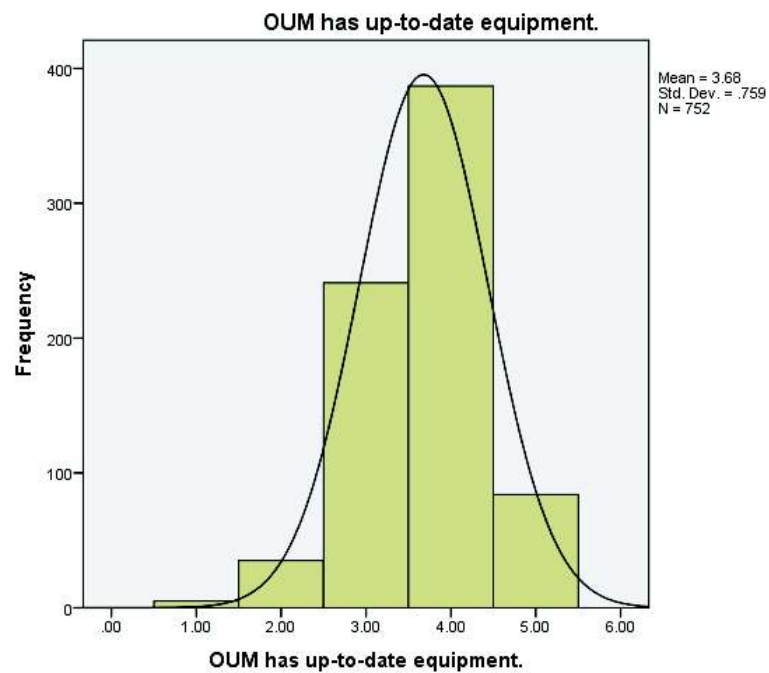
		I believe people have a good impression of OUM.	In general, my friends or relatives have a positive image of OUM.	My circle of acquaintances has a good impression towards OUM.	OUM has a better image as compared to other Open and Distance Learning Universities.	The general public has a good overall image towards OUM.	Employers have a positive image towards OUM.	Overall, the image of OUM is good.
N	Valid	752	752	752	752	752	752	752
	Missing	0	0	0	0	0	0	0
Mean		3.88	3.83	3.80	3.82	3.82	3.85	4.05
Std. Deviation		0.72	0.73	0.74	0.73	0.72	0.70	0.68
Skewness		-0.26	-0.26	-0.19	-0.20	-0.14	-0.05	-0.18
Std. Error of Skewness		0.09	0.09	0.09	0.09	0.09	0.09	0.09
Kurtosis		-0.01	0.00	-0.25	0.01	-0.16	-0.42	-0.40
Std. Error of Kurtosis		0.18	0.18	0.18	0.18	0.18	0.18	0.18

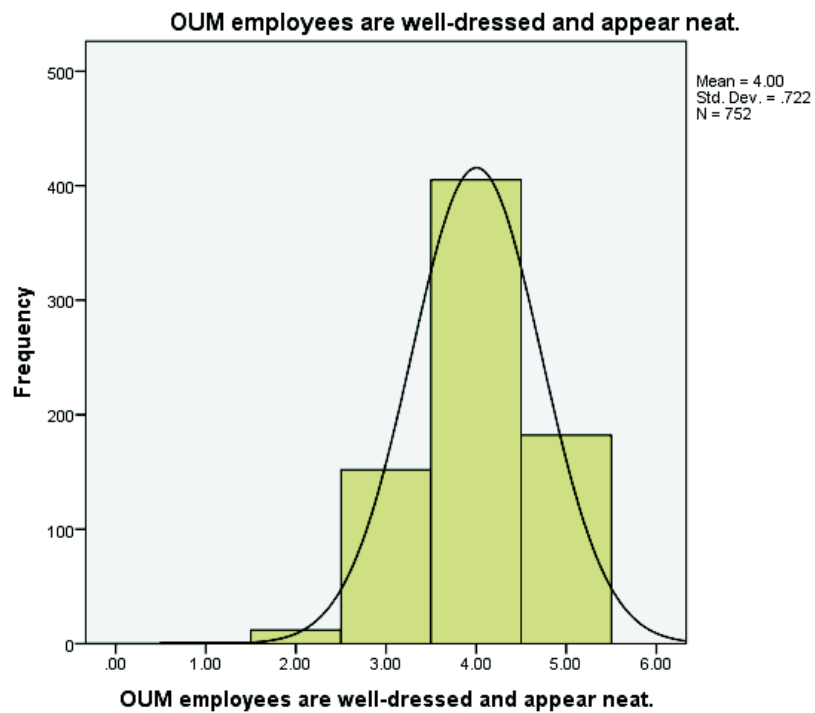
**Appendix C: Frequency Distribution For Student Loyalty**

	I would encourage others to become students at OUM.	I would recommend OUM to my relatives, friends and others.	I would encourage others to enroll in OUM.	I consider OUM as my first choice to obtain the academic qualification I need.	I will enroll in OUM when I need higher qualifications in the future.	I am willing to stay with OUM even if the academic programme fees are raised.	I am willing to stay with OUM even if its fees are more expensive than those of its competitors.	I would recommend my programme to others.	I would recommend OUM to others.	I am very interested in keeping in touch with OUM even after graduation.	If I am faced with the same choices again, I would still choose OUM.	I would become a member of OUM alumni.
N	752	752	752	752	752	752	752	752	752	752	752	752
Valid												
Missing	0	0	0	0	0	0	0	0	0	0	0	0
Mean	3.98	4.01	3.99	3.81	3.78	3.17	3.14	3.83	3.90	3.77	3.74	3.78
Std. Deviation	0.75	0.74	0.76	0.80	0.85	1.03	1.08	0.78	0.77	0.73	0.76	0.77
Skewness	-0.24	-0.37	-0.28	-0.31	-0.37	-0.20	-0.21	-0.44	-0.53	-0.07	-0.04	-0.18
Std. Error of Skewness	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
Kurtosis	-0.52	-0.22	-0.48	-0.09	-0.19	-0.31	-0.53	0.52	0.56	-0.12	-0.28	-0.02
Std. Error of Kurtosis	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18

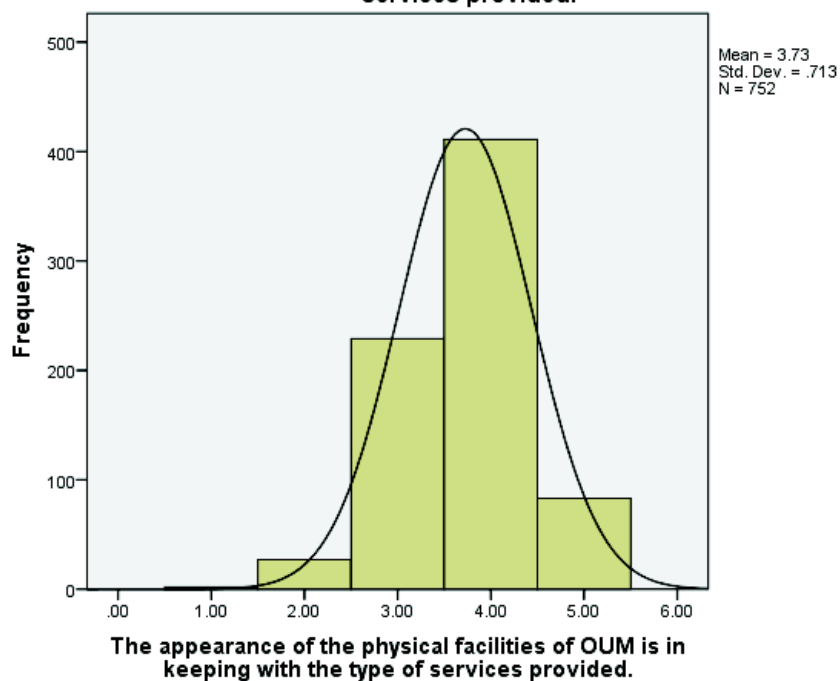
## DISTRIBUTION OF 22 ITEMS OF PERCEIVED SERVICE QUALITY

### 1. Dimension 1: Tangibles



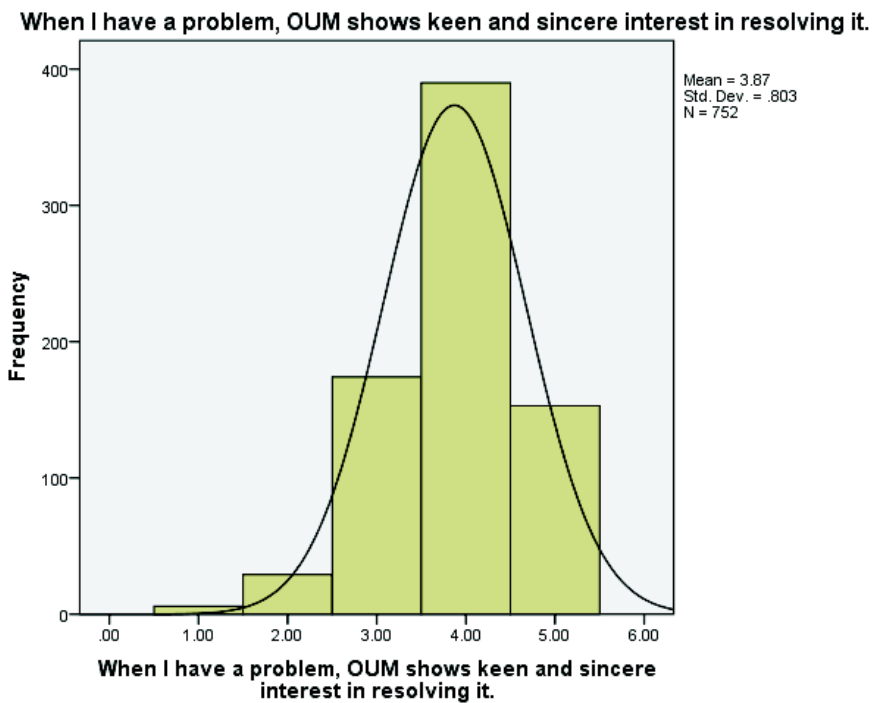
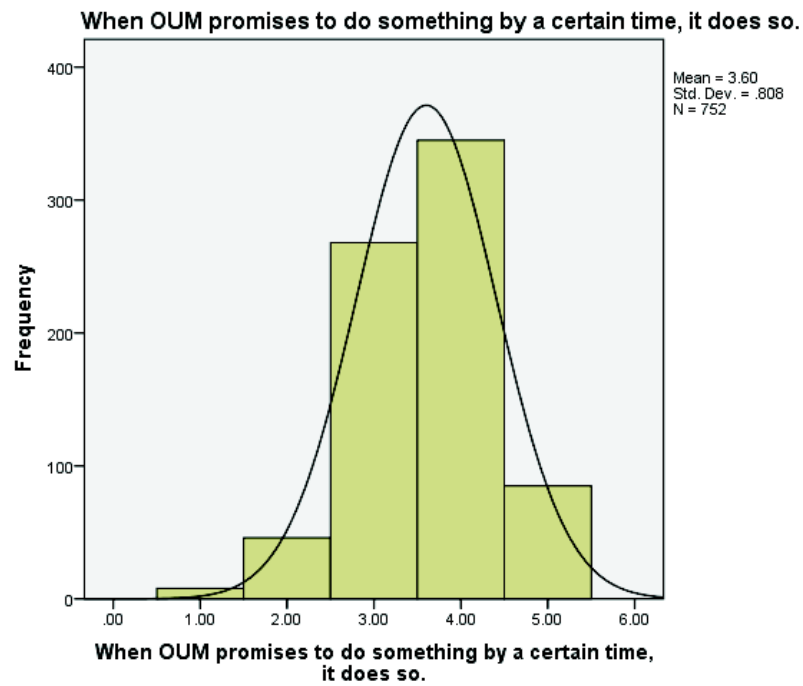


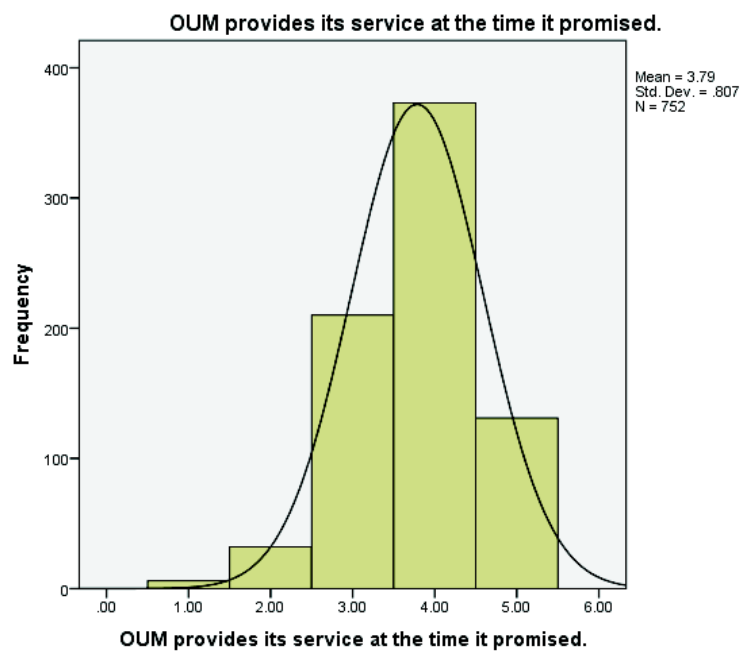
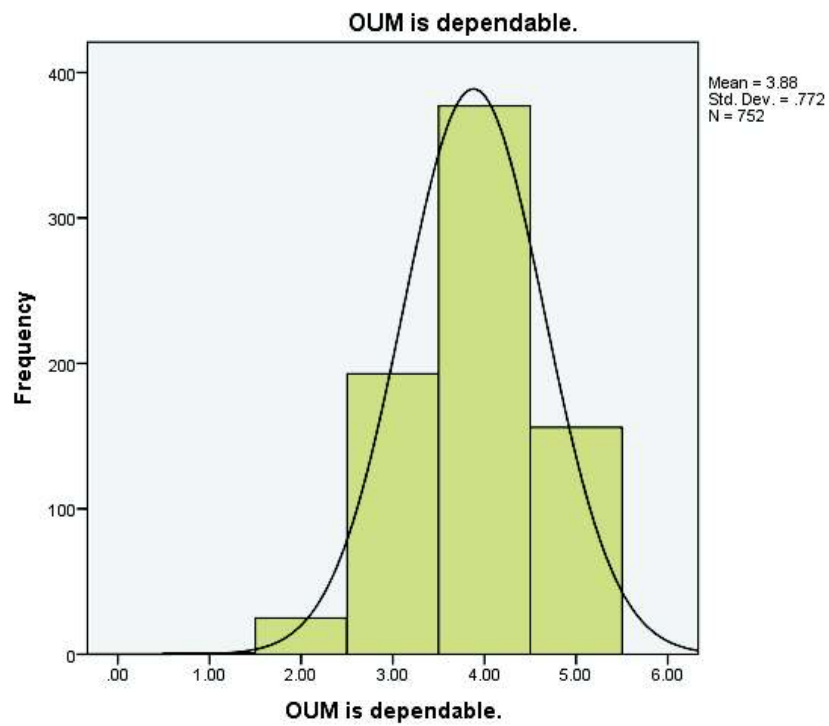
**The appearance of the physical facilities of OUM is in keeping with the type of services provided.**

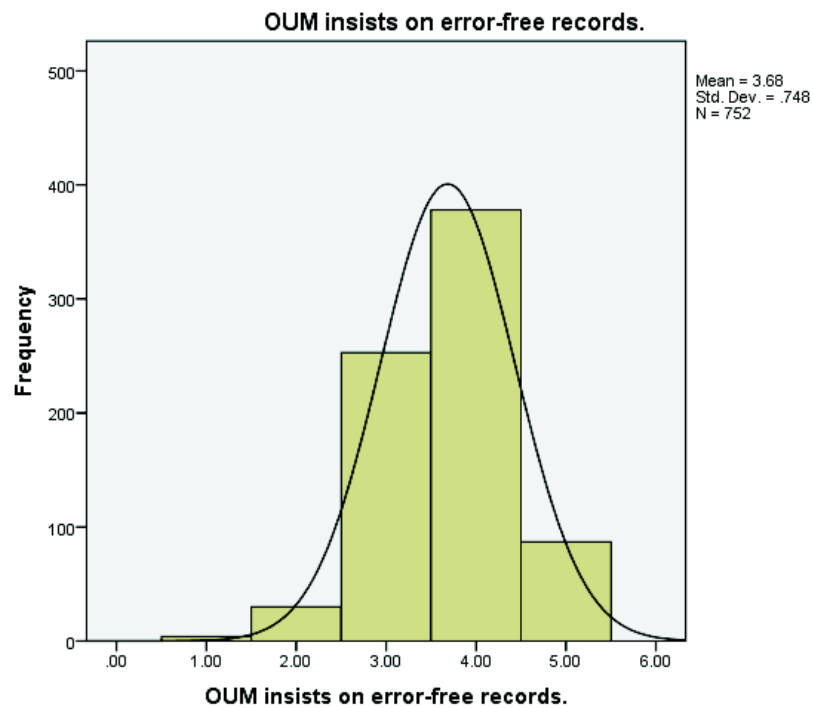




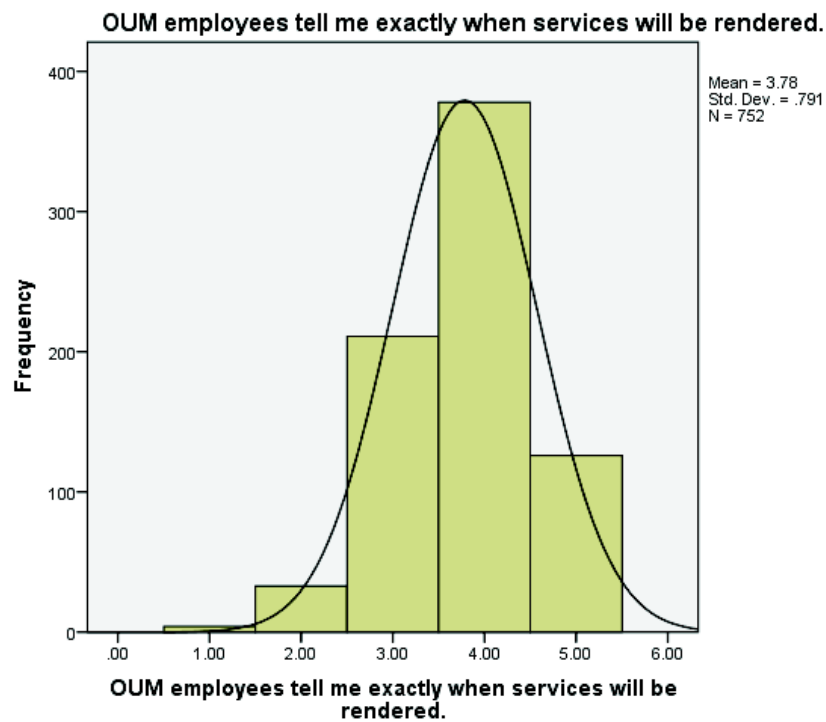
## 2. Dimension 2: Reliability

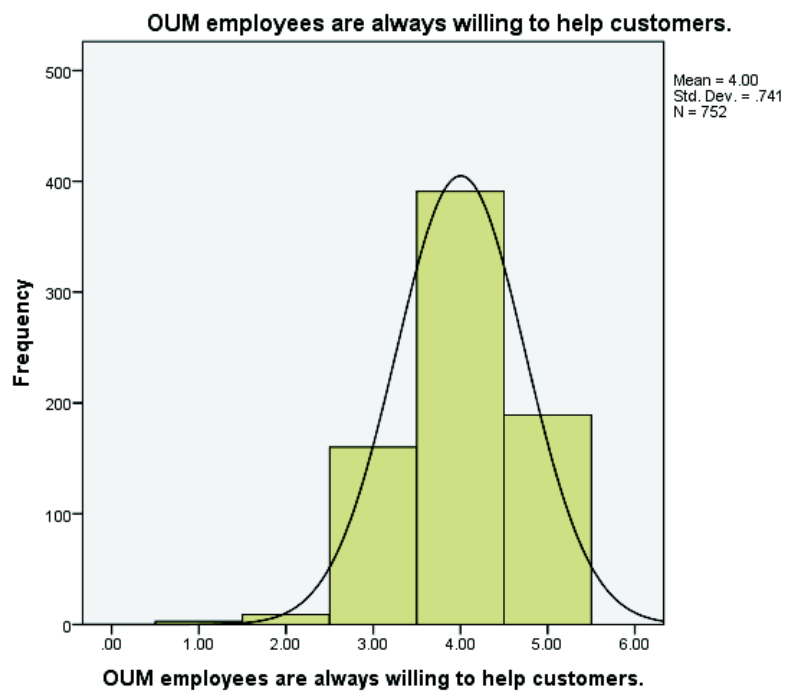
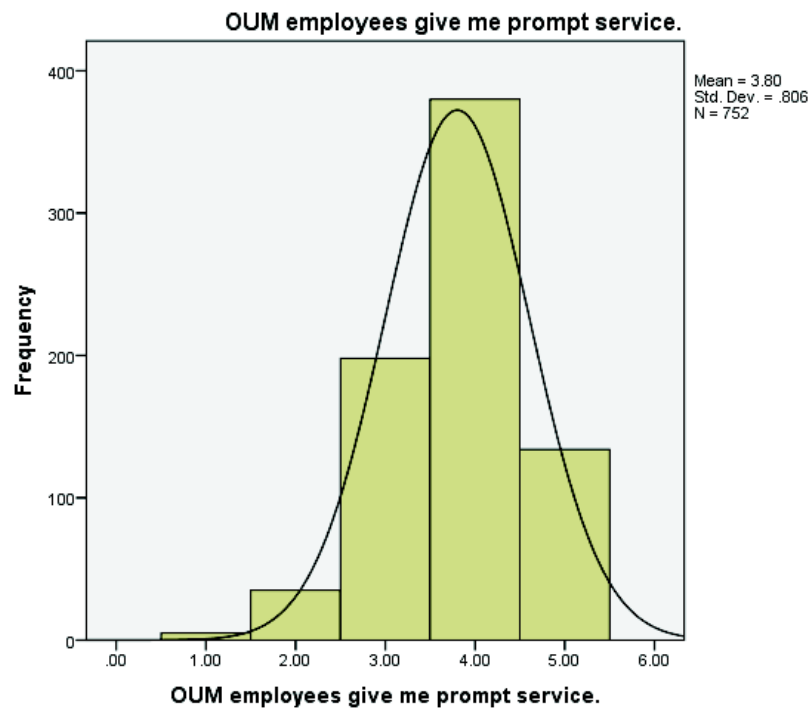


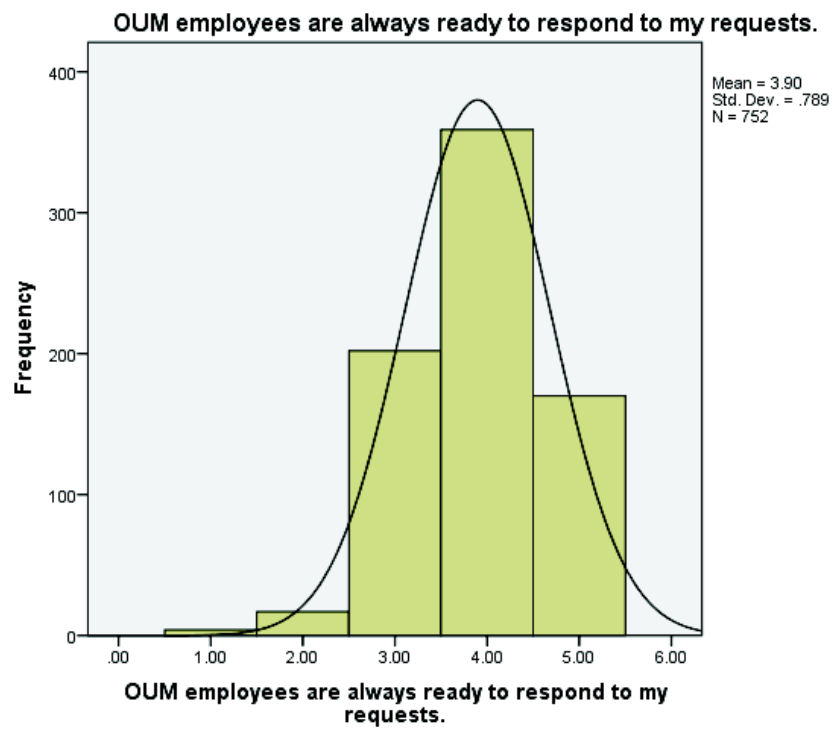




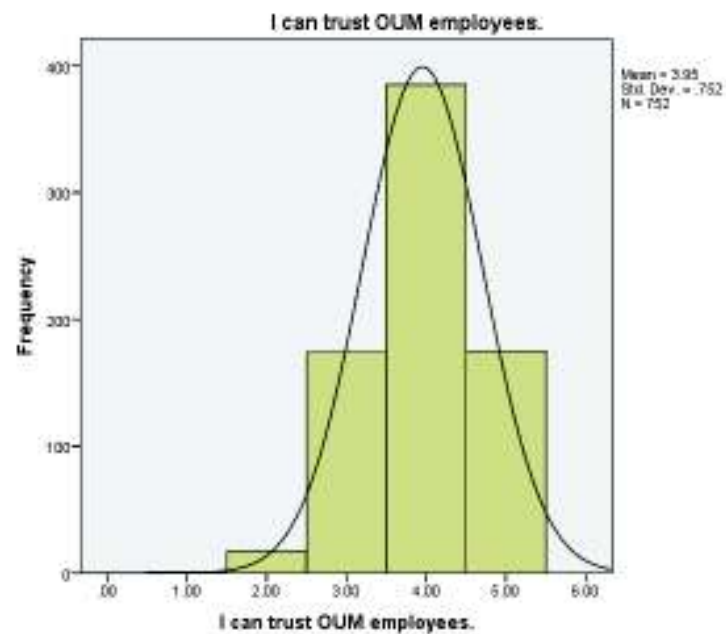
### 3. Dimension 3: Responsiveness

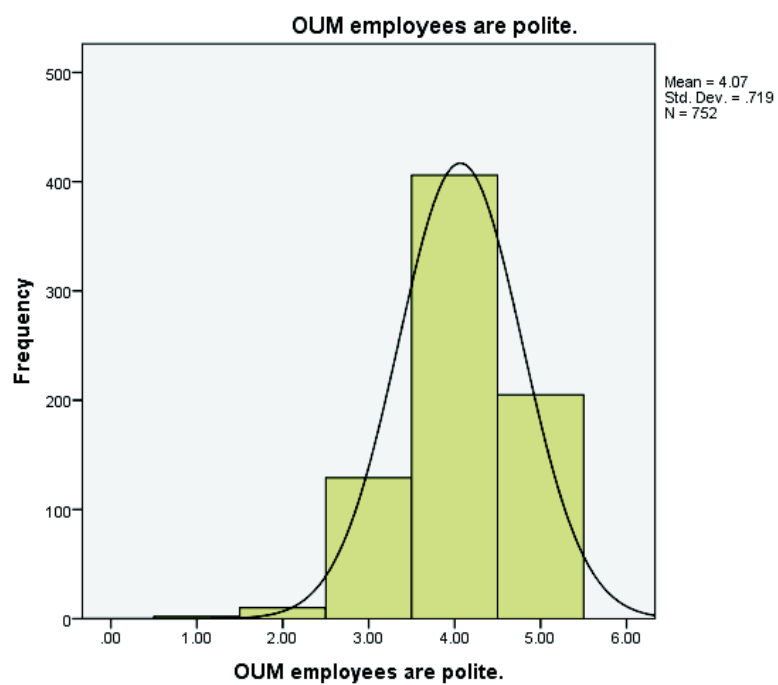
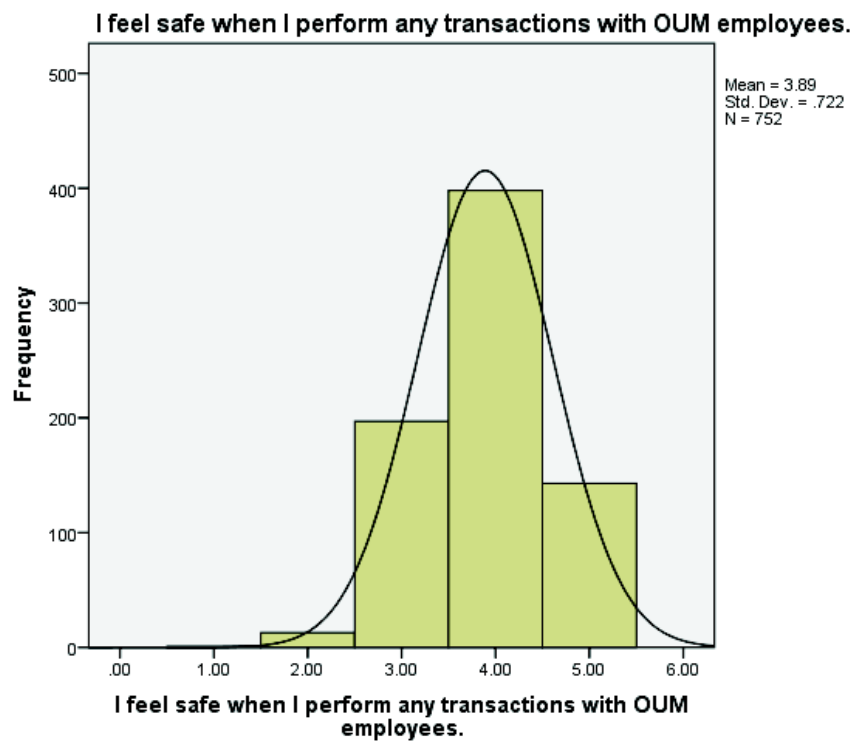




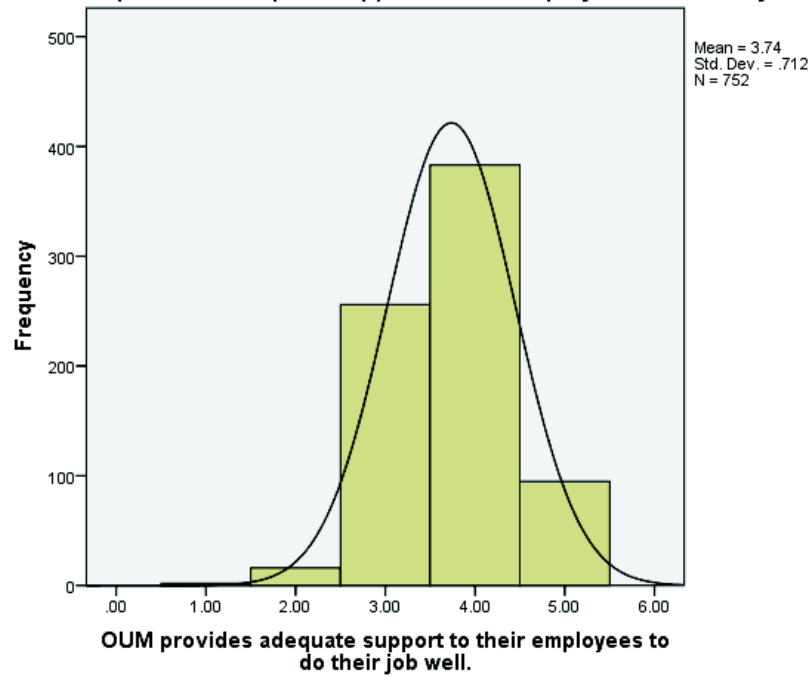


#### 4. Dimension 4: Assurance

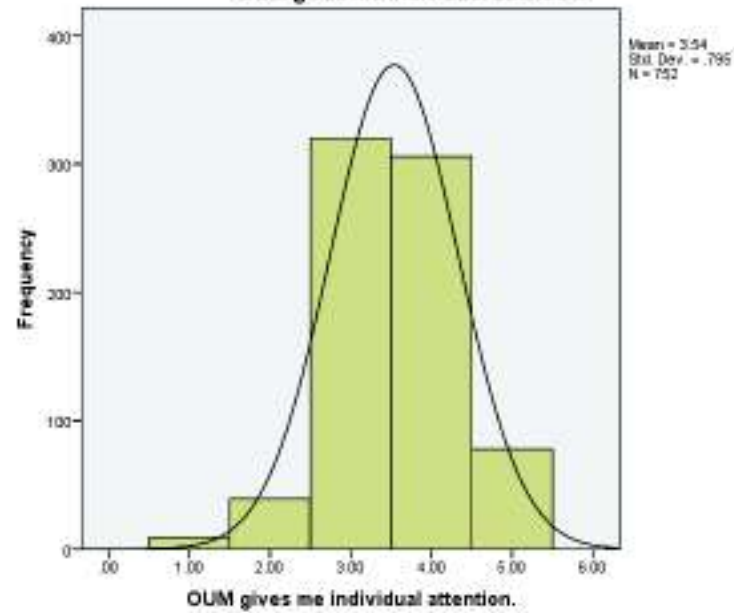




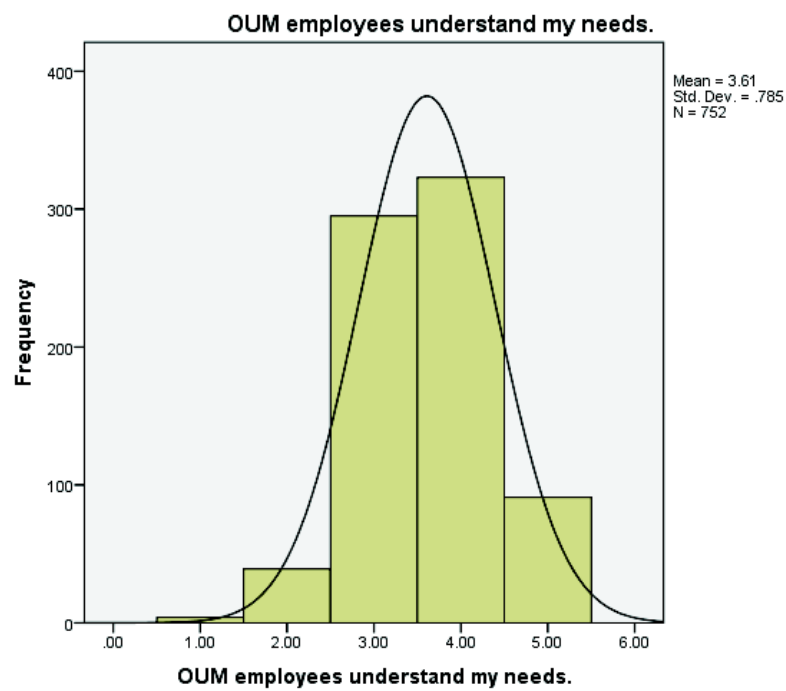
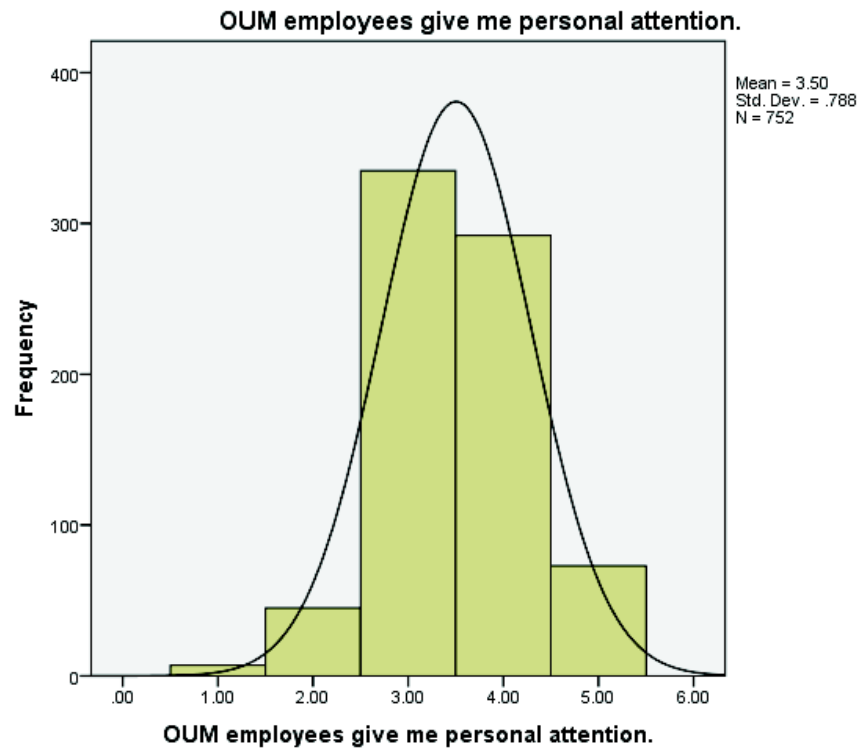
**OUM provides adequate support to their employees to do their job well.**



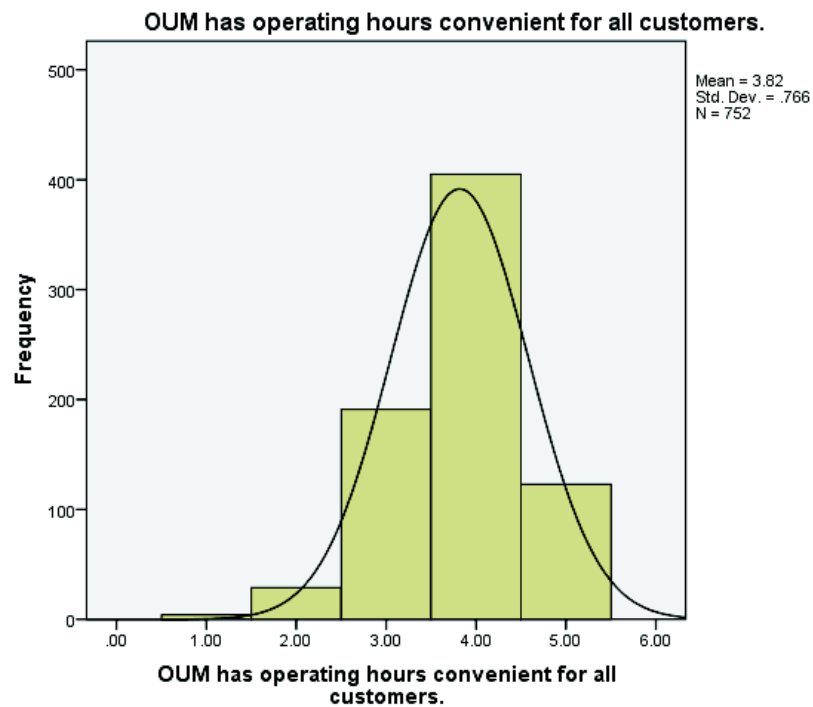
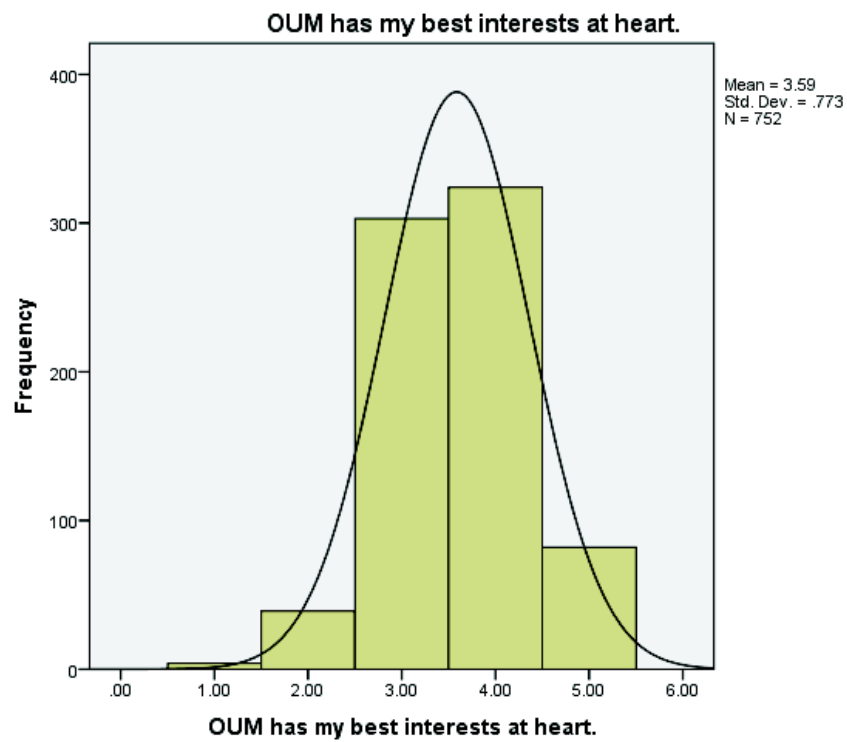
**OUM gives me individual attention.**



## 5. Dimension 5: Empathy



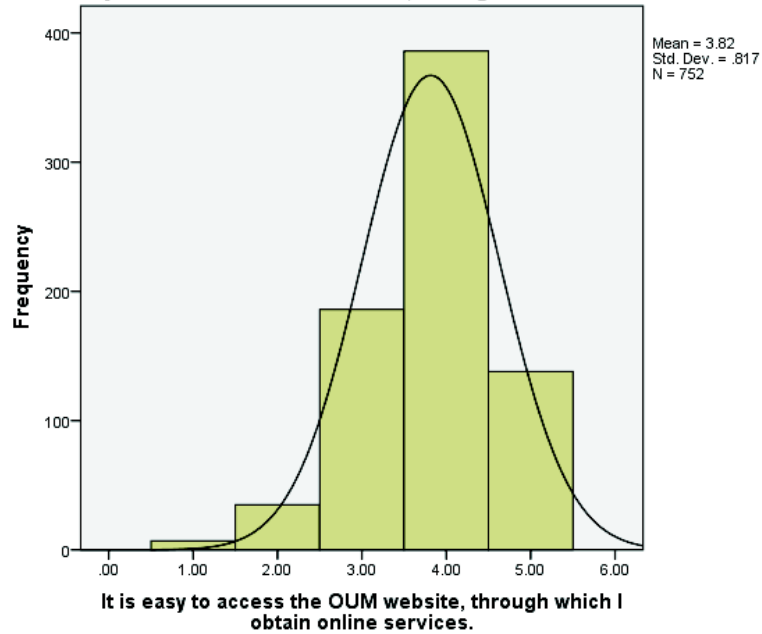




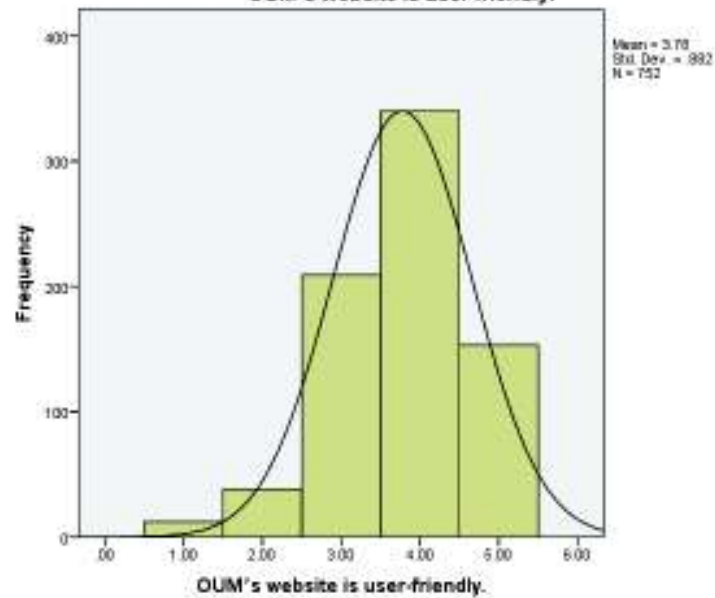
## DISTRIBUTION OF 19 ITEMS OF PERCEIVED E-SERVICE QUALITY

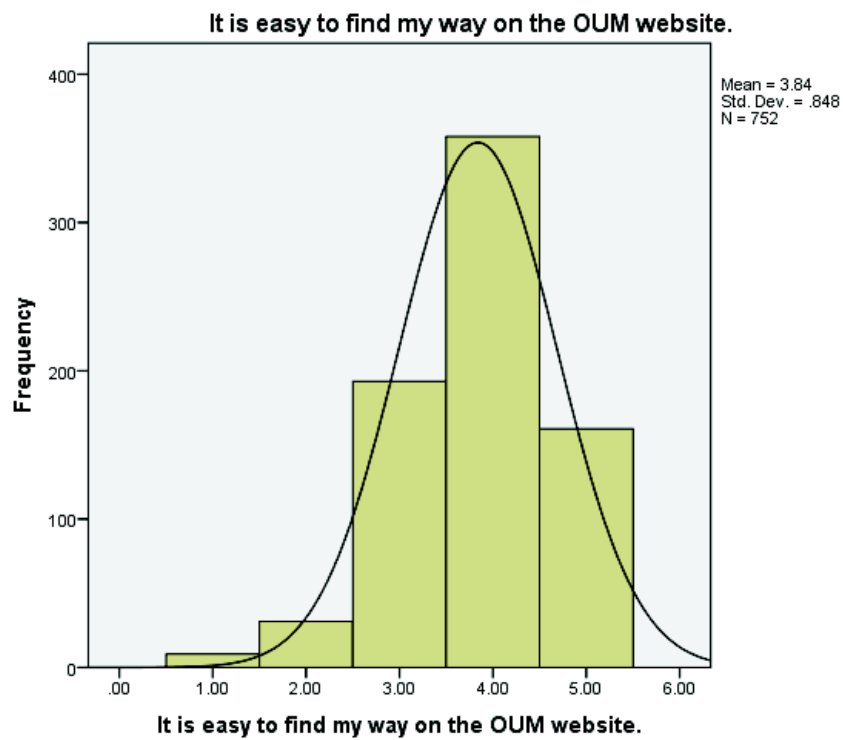
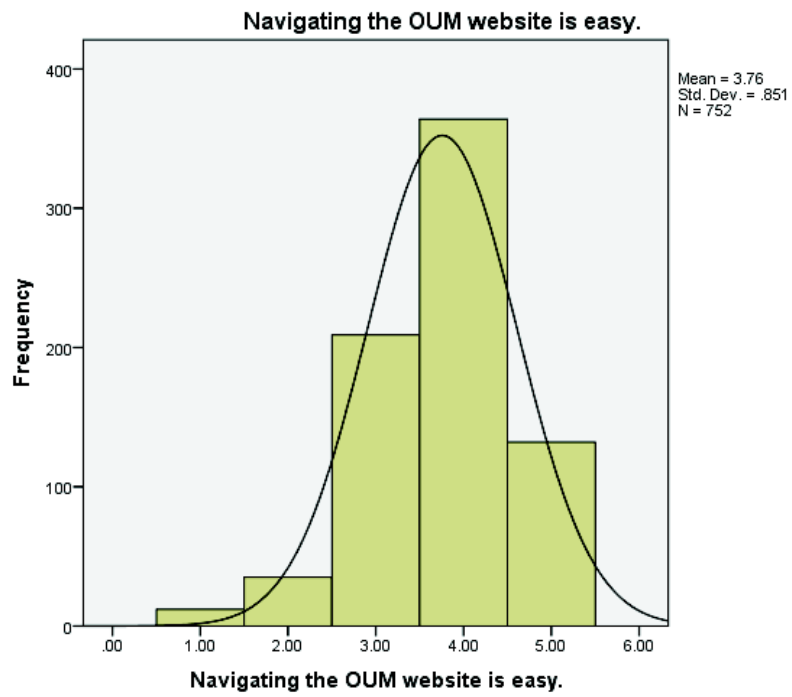
### 1. Dimension 1: Ease of Use

It is easy to access the OUM website, through which I obtain online services.

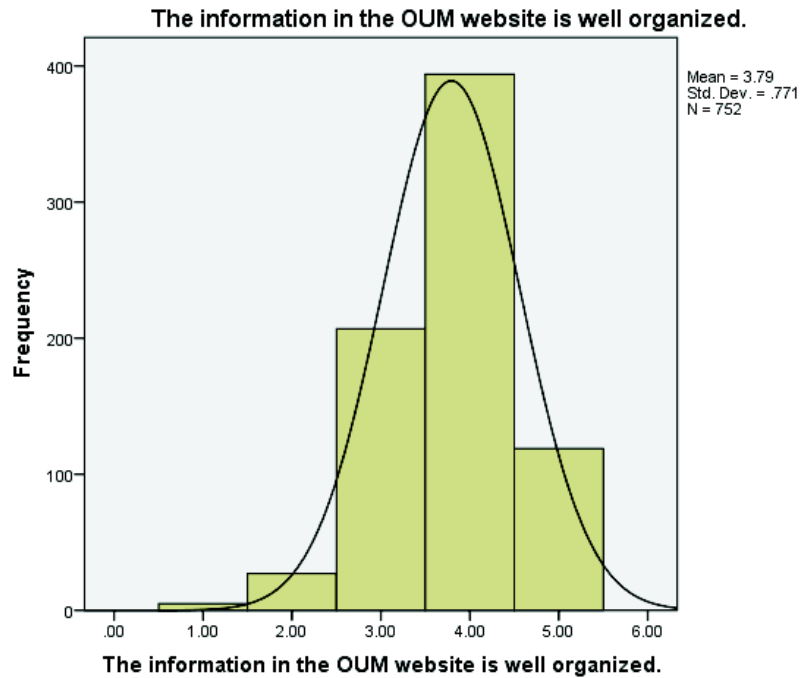
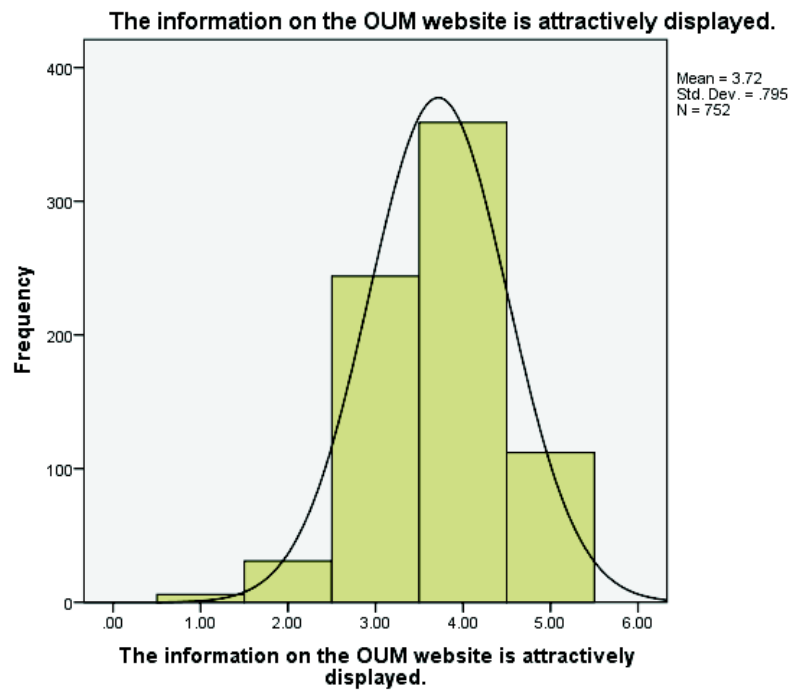


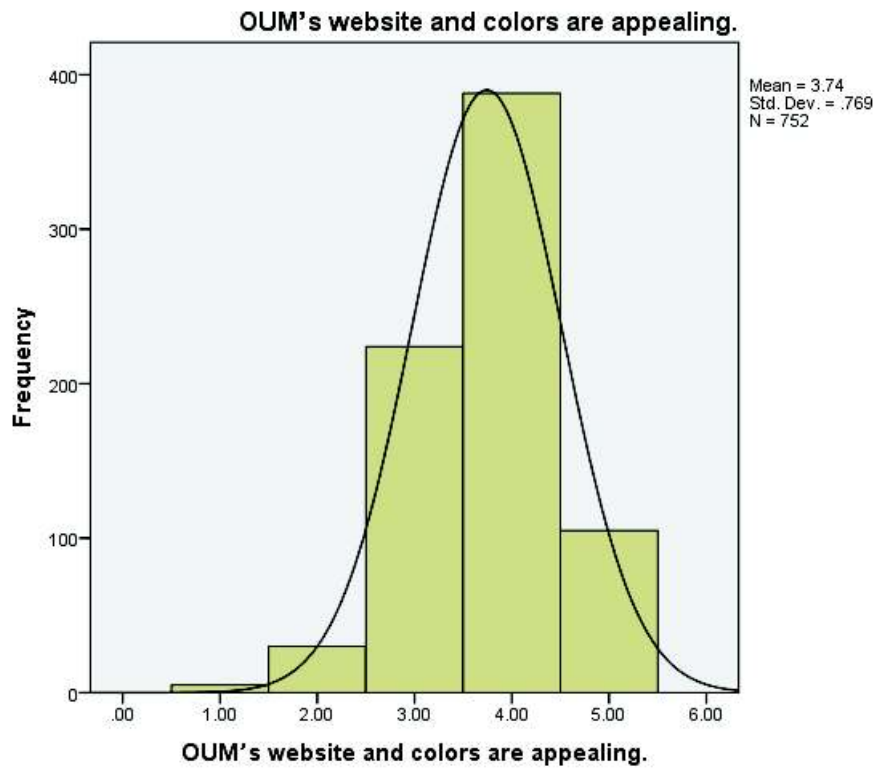
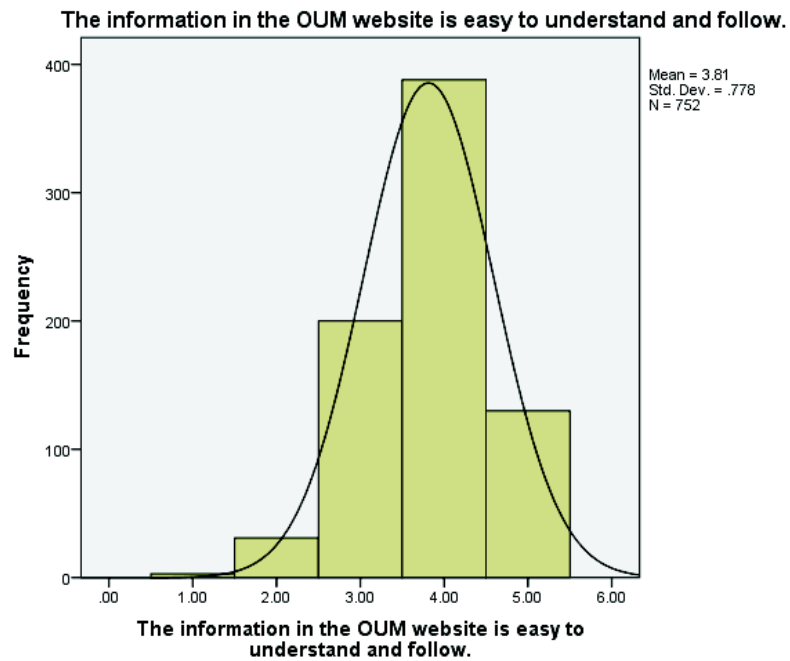
OUM's website is user-friendly.





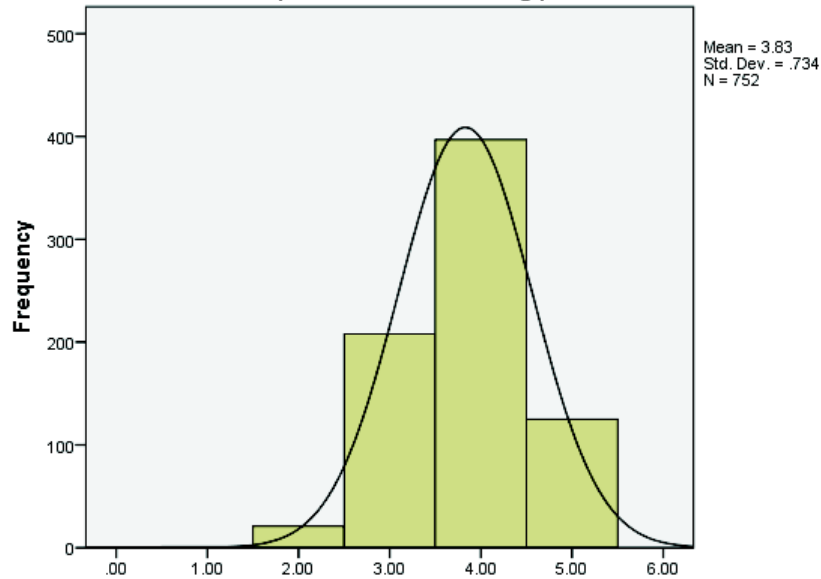
## 2. Dimension 2: Website Design





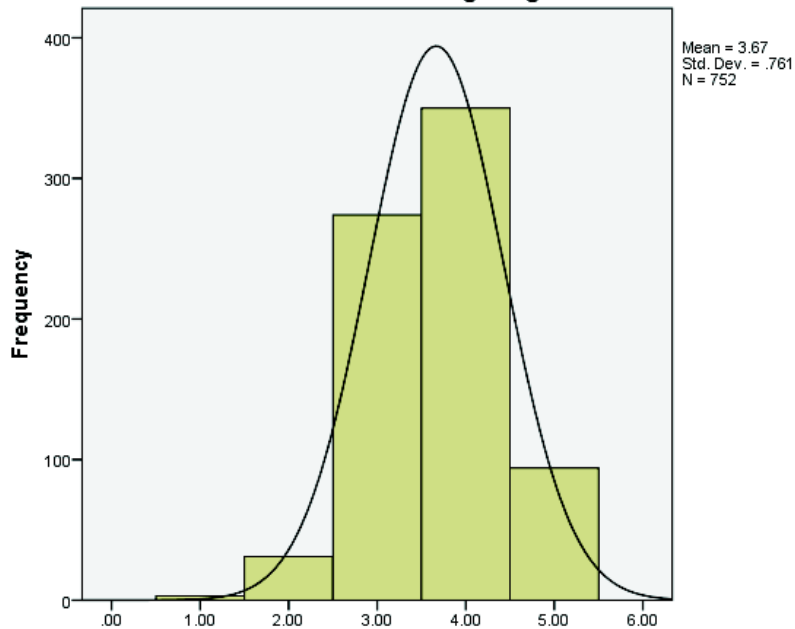
### 3. Dimension 3: E-Responsiveness

**It is easy to seek information about education services from OUM because it provides an e-learning platform.**

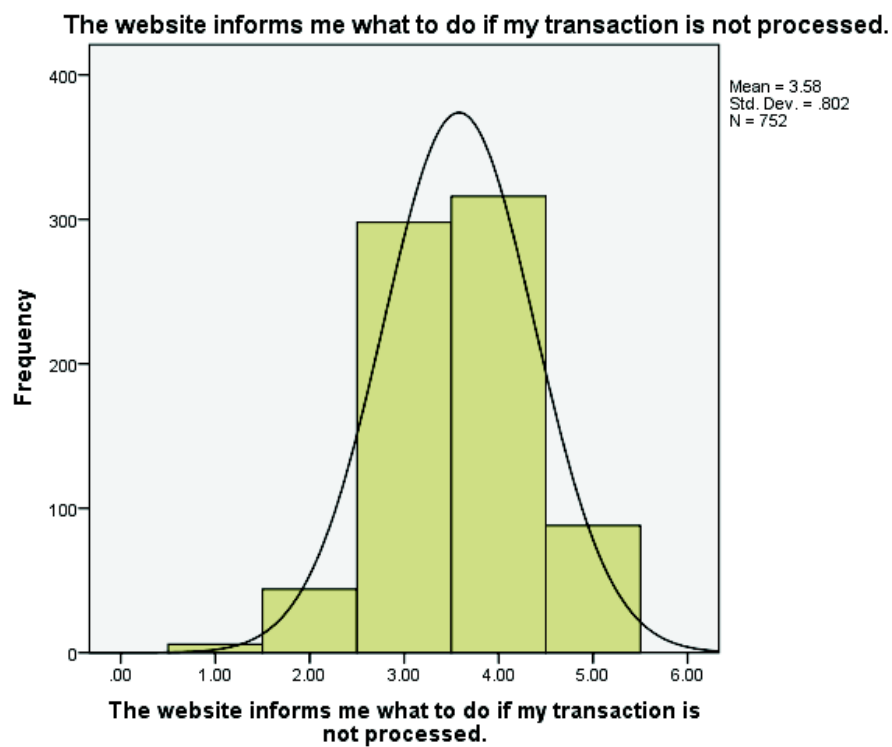
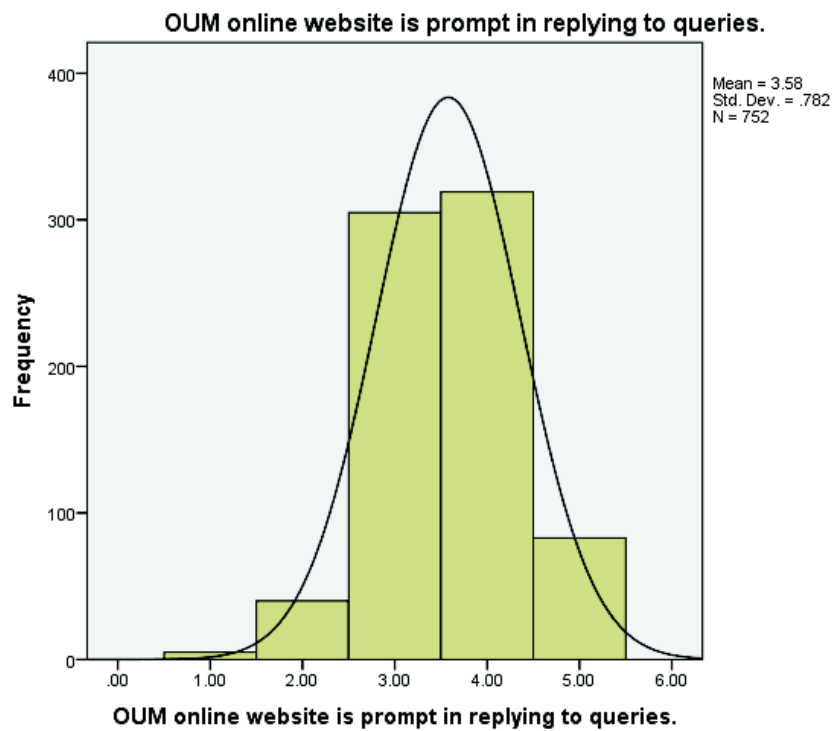


**It is easy to seek information about education services from OUM because it provides an e-learning platform.**

**OUM is interested in getting feedback.**

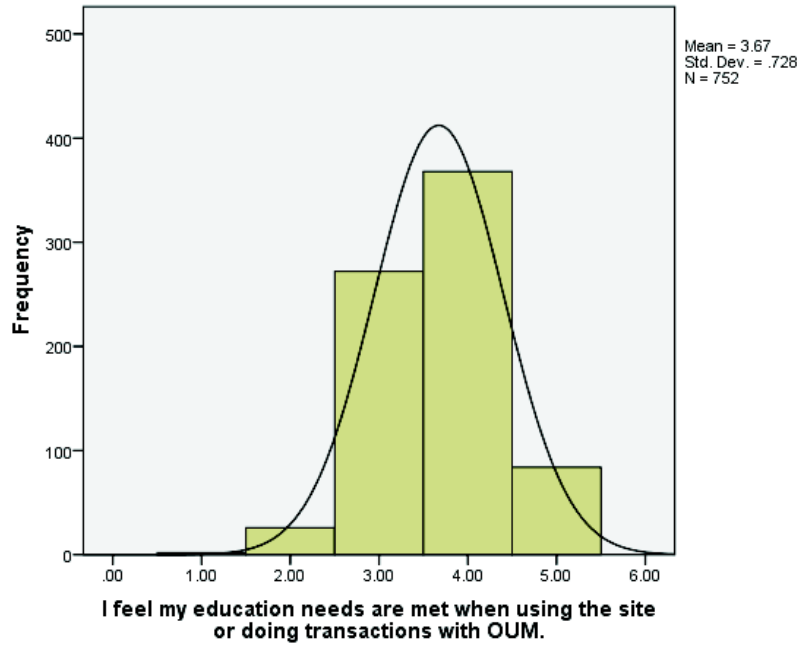


**OUM is interested in getting feedback.**

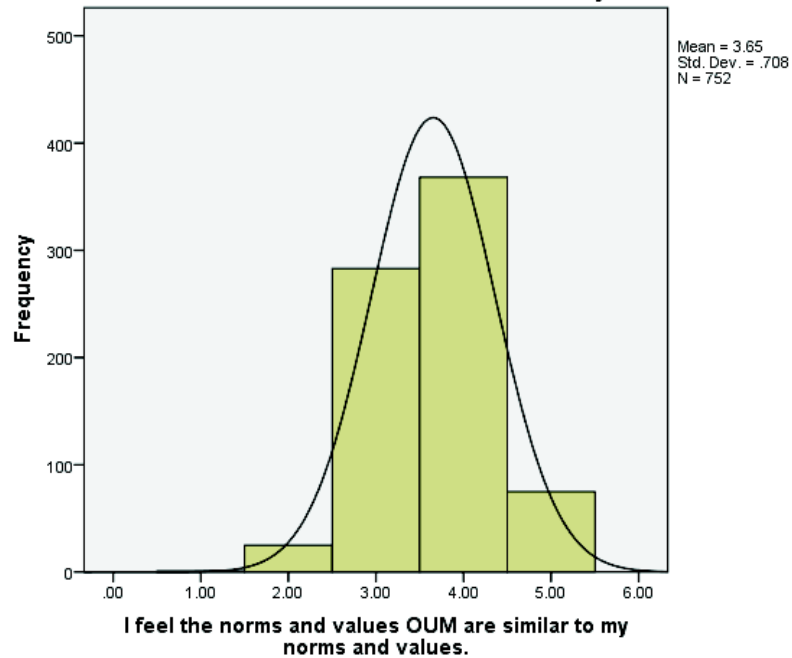


#### 4. Dimension 4: Customization

I feel my education needs are met when using the site or doing transactions with OUM.

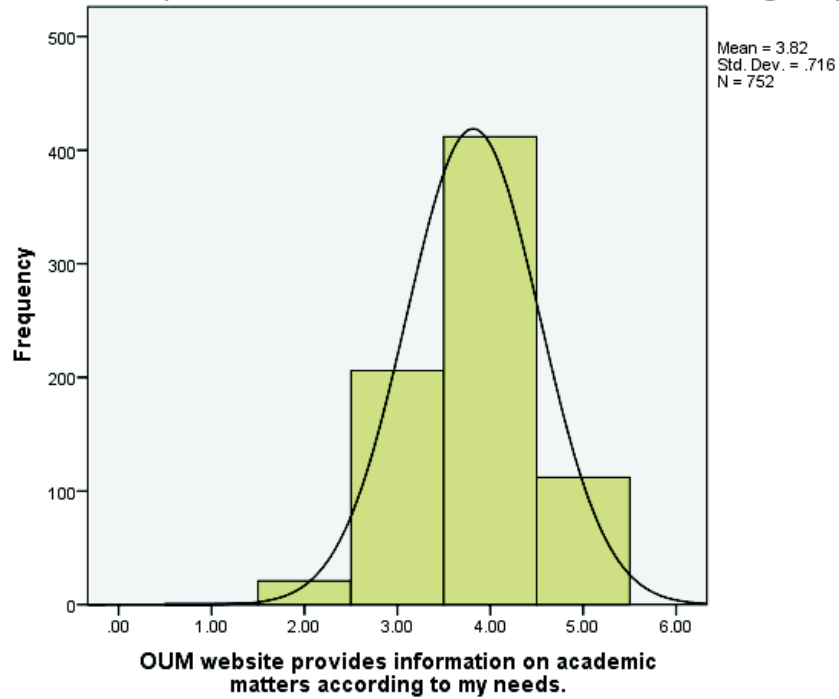


I feel the norms and values OUM are similar to my norms and values.

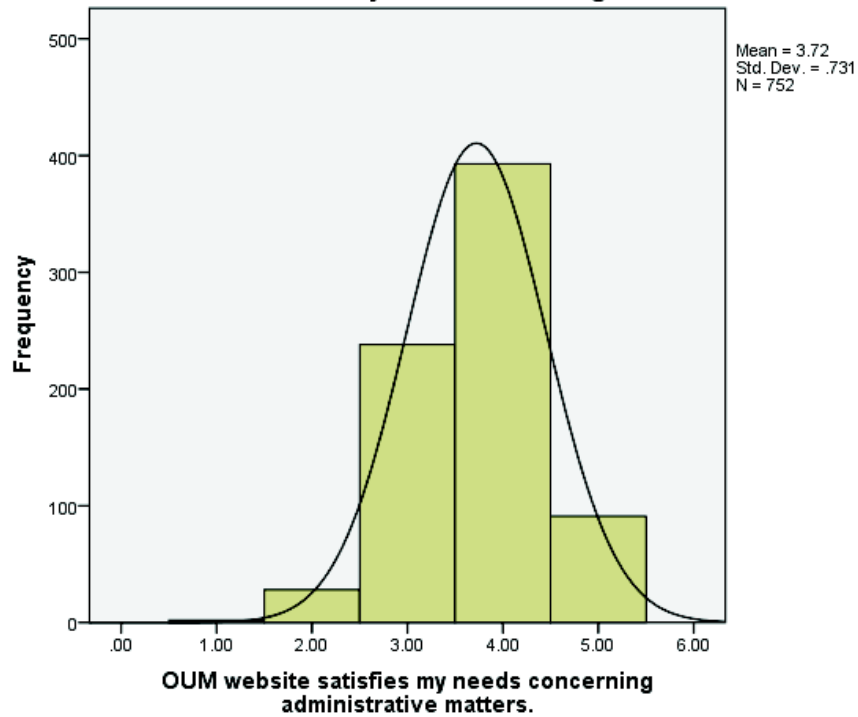




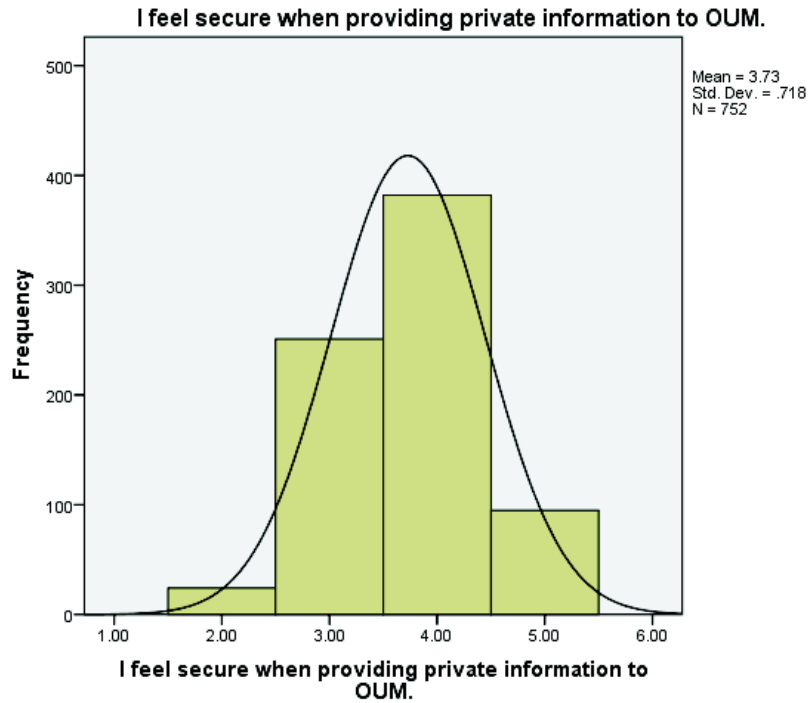
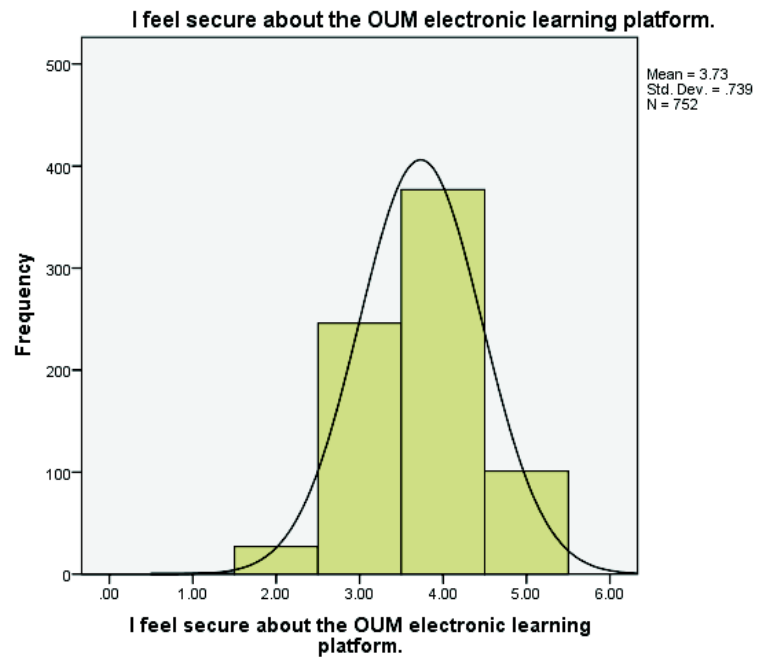
**OUM website provides information on academic matters according to my needs.**

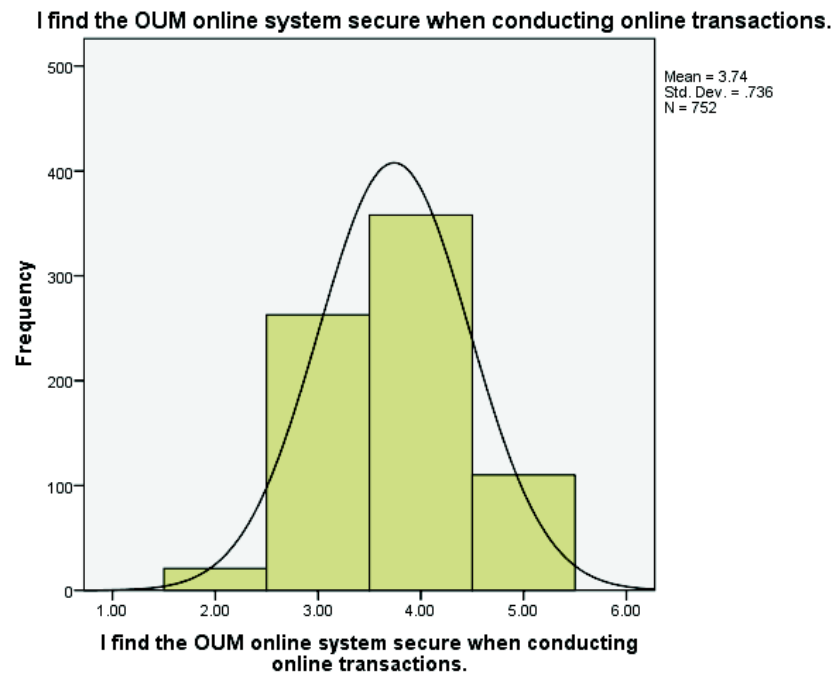


**OUM website satisfies my needs concerning administrative matters.**

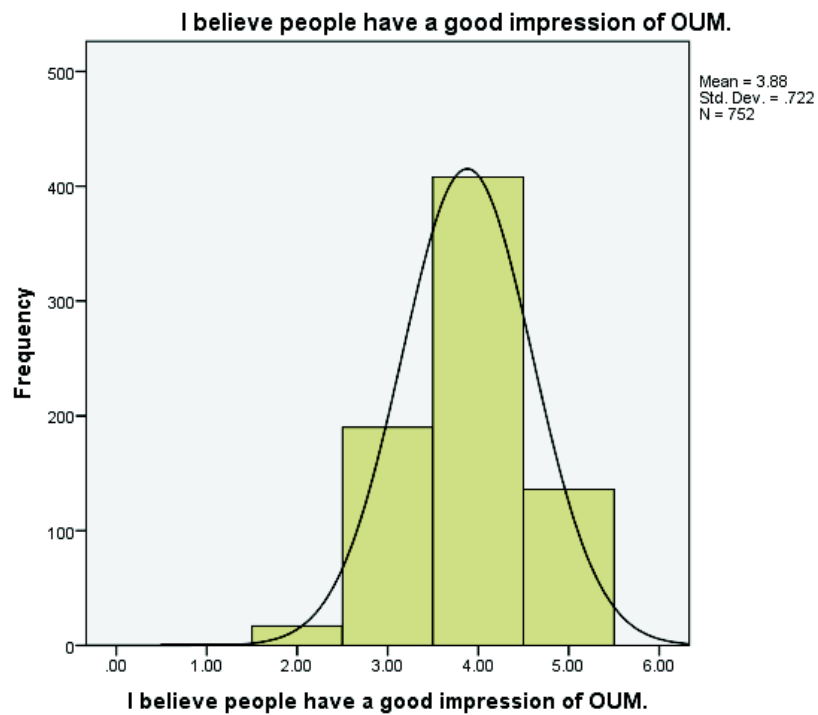


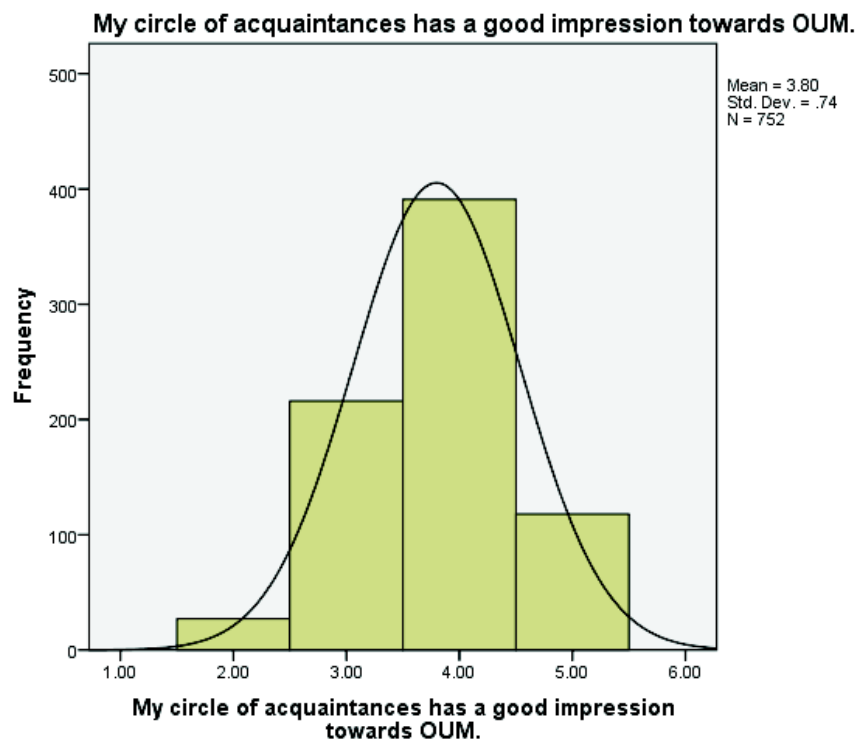
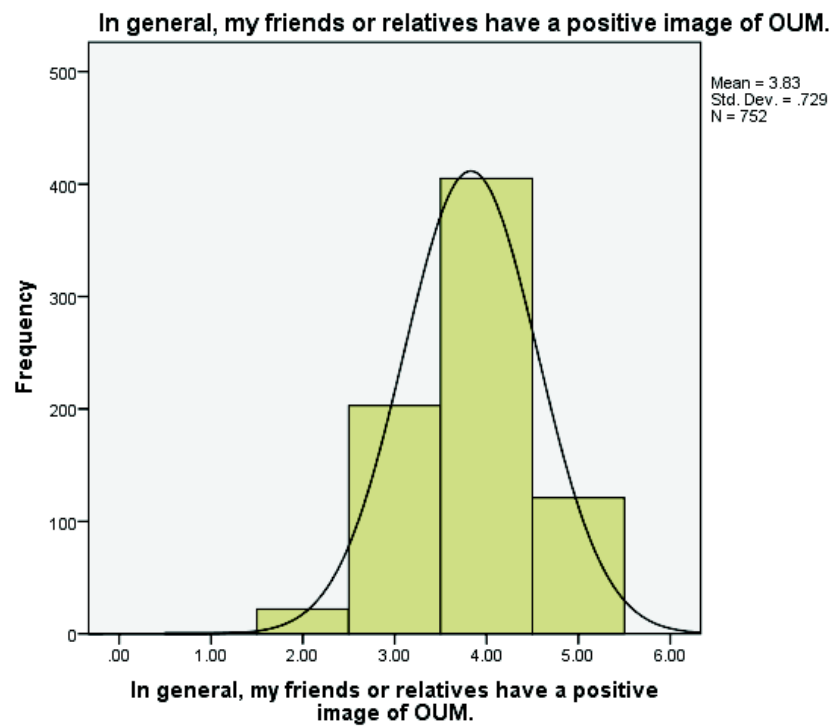
## 5. E-Assurance



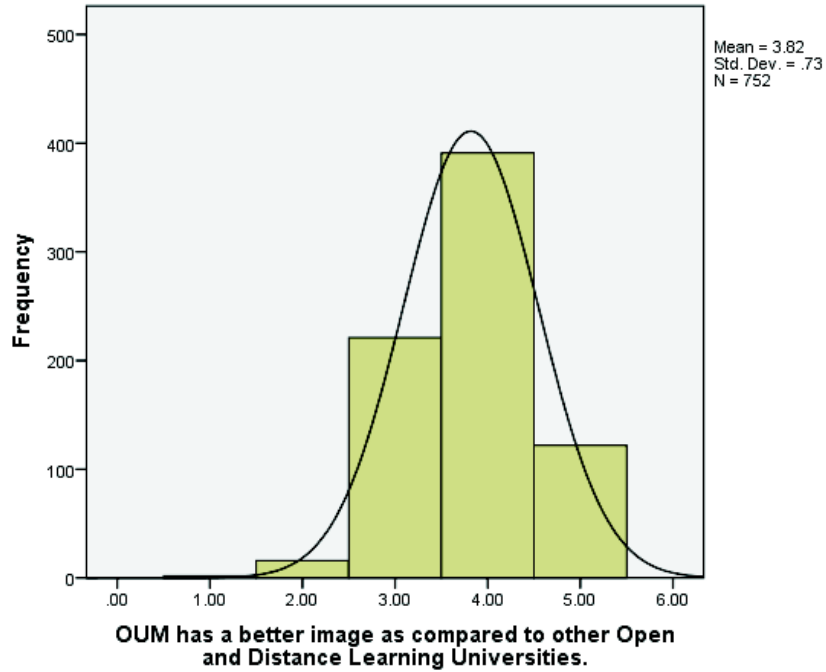


## **DISTRIBUTION OF 7 ITEMS OF UNIVERSITY IMAGE**

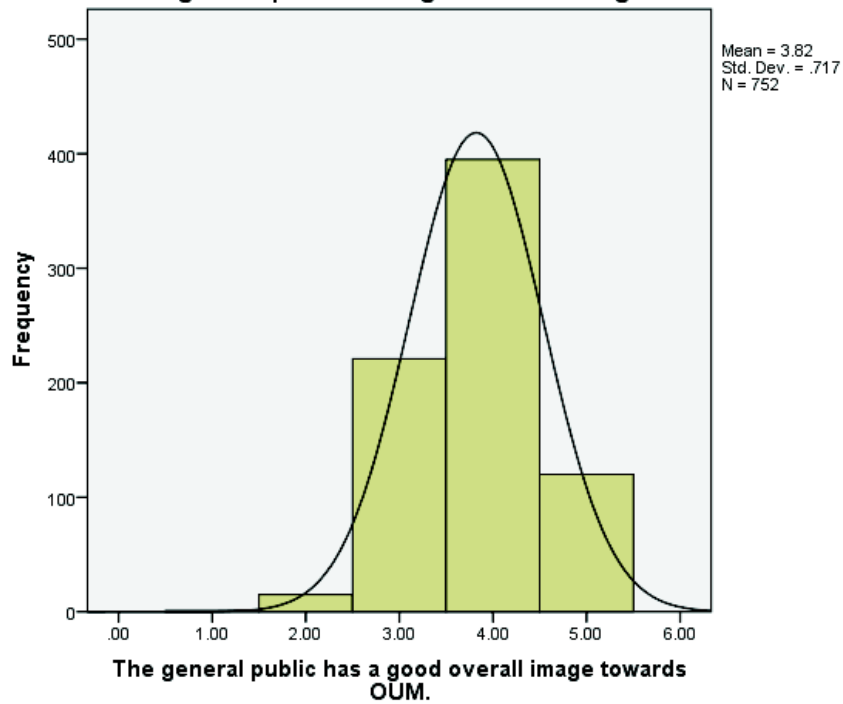


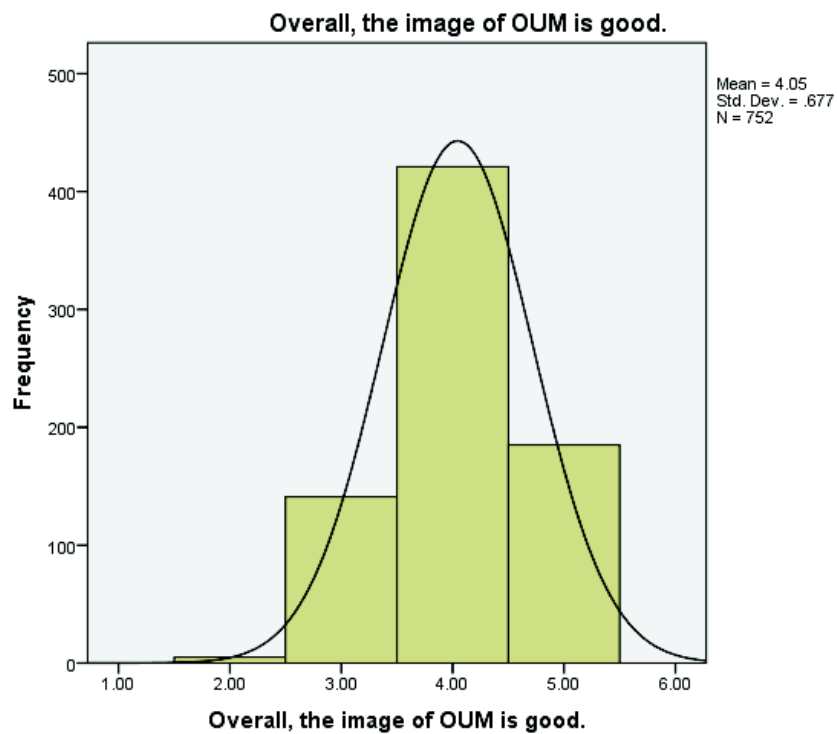
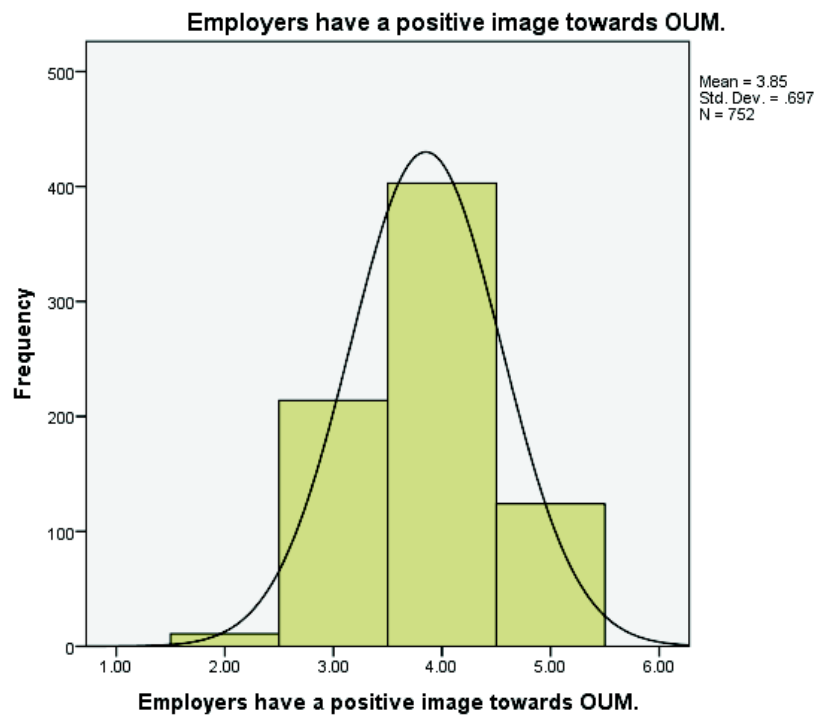


**OUM has a better image as compared to other Open and Distance Learning Universities.**



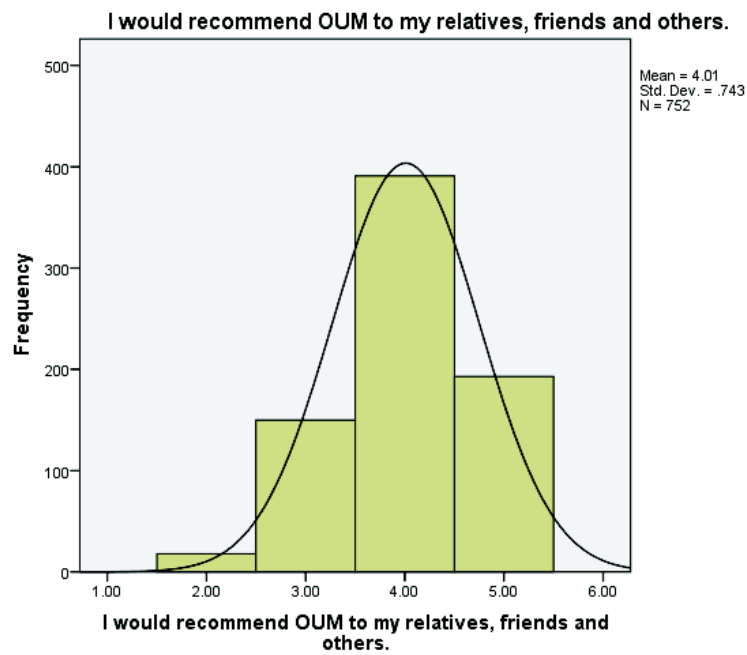
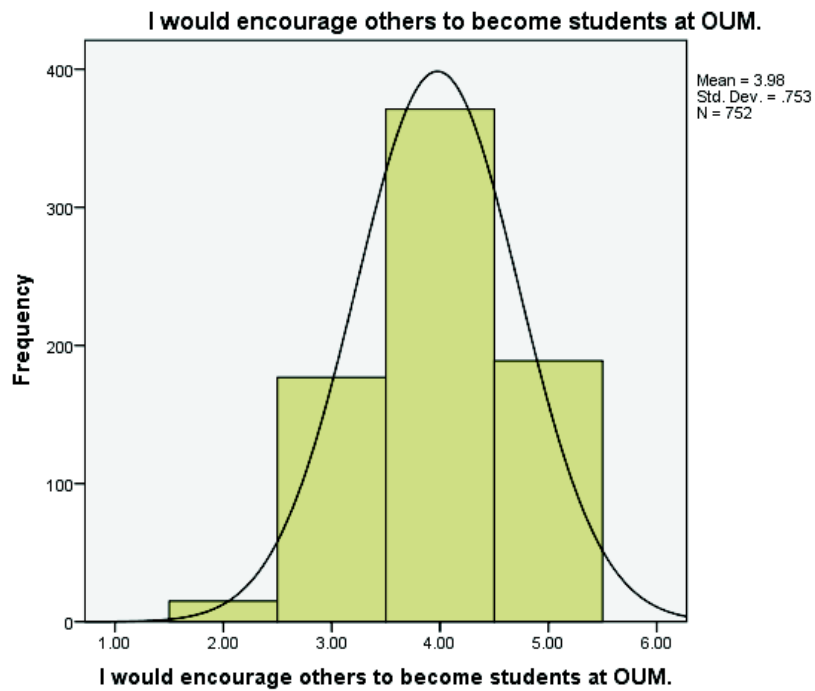
**The general public has a good overall image towards OUM.**

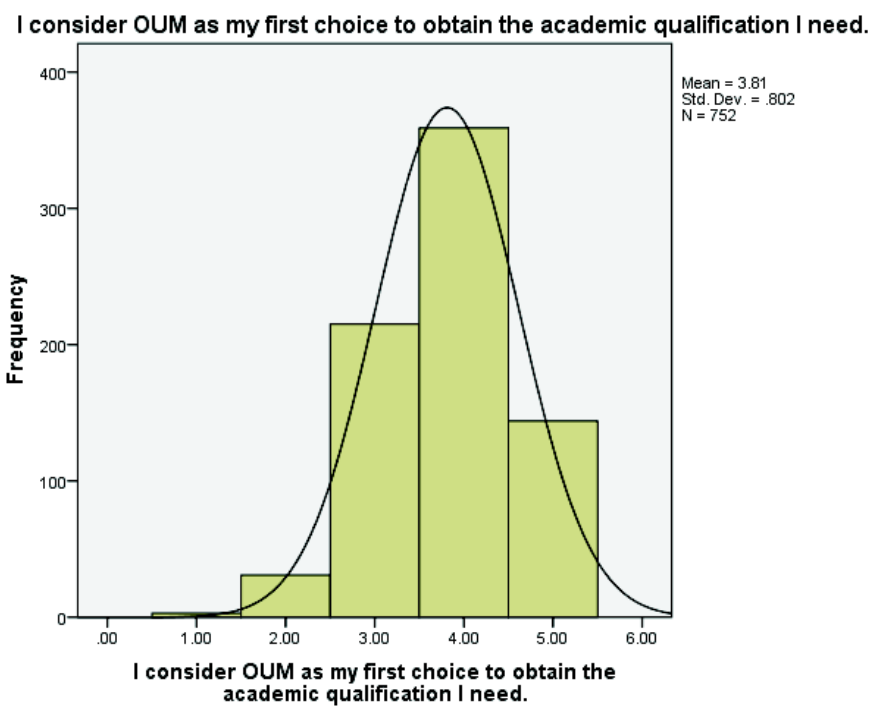
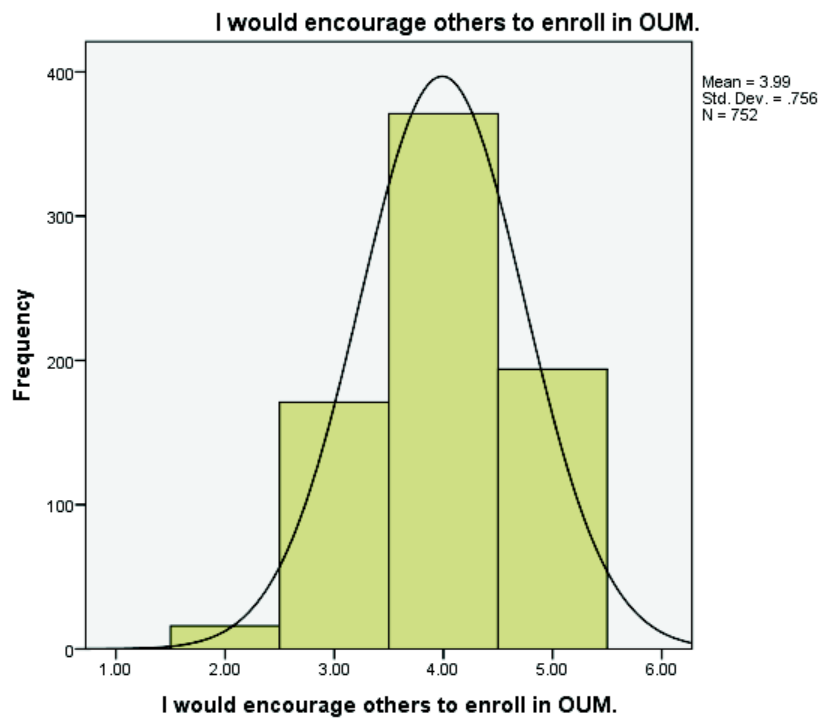




## DISTRIBUTION OF 12 ITEMS OF STUDENT LOYALTY

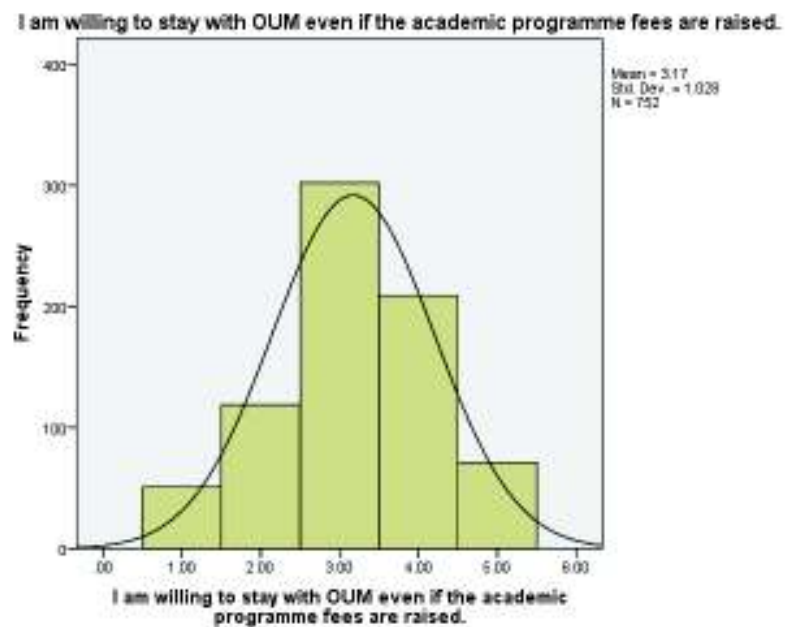
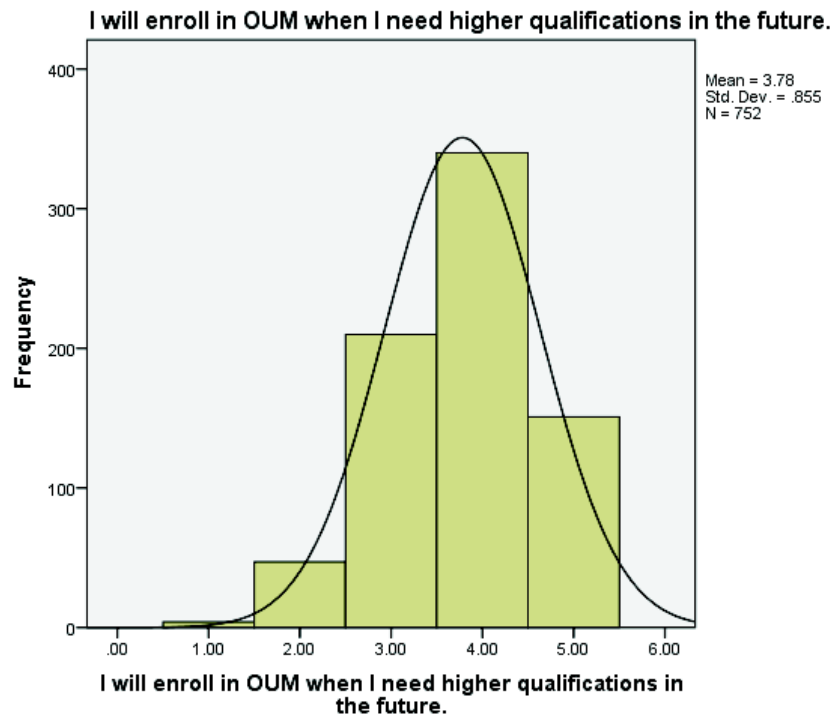
### 1. Dimension: Word of Mouth



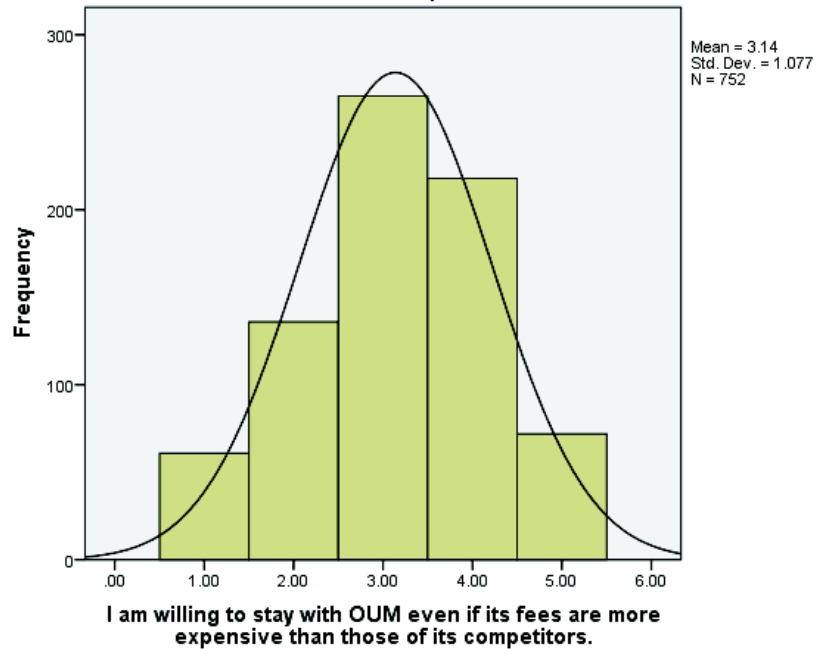




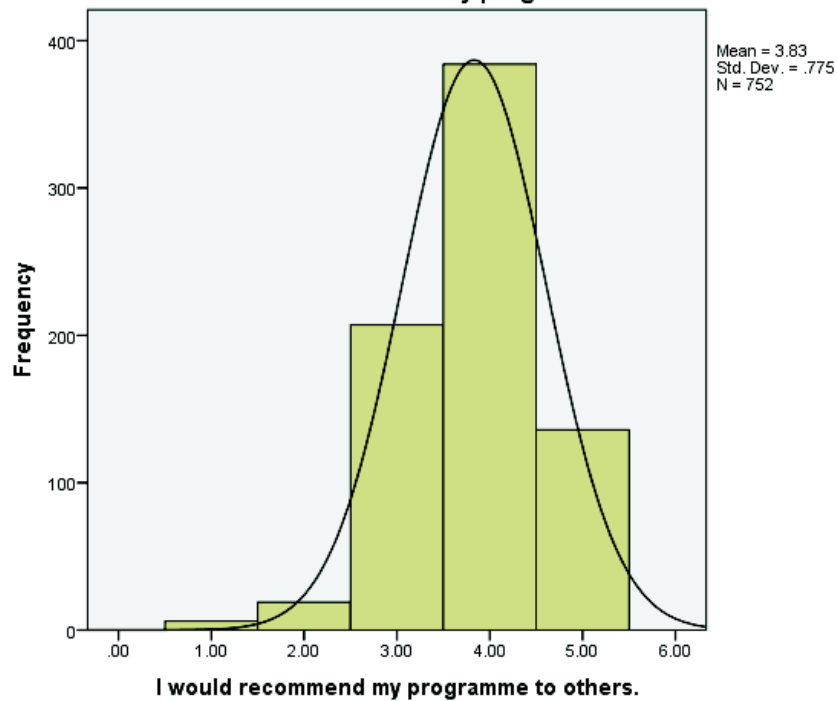
## 2. Dimension 2: Commitment



**I am willing to stay with OUM even if its fees are more expensive than those of its competitors.**



**I would recommend my programme to others.**



### 3. Dimension 3: Loyalty

